```
<110> Soppet et al.
<120> 33 Human Secreted Proteins
<130> PZ037P1
<140> Unassigned
<141> 2000-07-28
<150> PCT/US00/03062
<151> 2000-02-08
<150> 60/119,468
<151> 1999-02-10
<160> 173
<170> PatentIn Ver. 2.0
<210> 1
<211> 733
<212> DNA
<213> Homo sapiens
<400> 1
gggatccgga gcccaaatct tctgacaaaa ctcacacatg cccaccgtgc ccagcacctg
                                                                         60
aattcgaggg tgcaccgtca gtcttcctct tccccccaaa acccaaggac accctcatga
                                                                        120
tctcccggac tcctgaggtc acatgcgtgg tggtggacgt aagccacgaa gaccctgagg
                                                                        180
                                                                        240
tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg
                                                                        300
aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact
ggctgaatgg caaggagtac aagtgcaagg tctccaacaa agccctccca acccccatcg
                                                                        360
agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc
                                                                        420
catcccggga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct
                                                                        480
atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga
                                                                        540
ccacgcctcc cgtgctggac tccgacggct ccttcttcct ctacagcaag ctcaccgtgg
                                                                         600
acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc
                                                                         660
                                                                         720
acaaccacta cacgcagaag agcctctccc tgtctccggg taaatgagtg cgacggccgc
                                                                         733
gactctagag gat
<210> 2
<211> 5
<212> PRT
<213> Homo sapiens
<220>
<221> Site
<222> (3)
<223> Xaa equals any of the twenty naturally ocurring L-amino acids
<400> 2
Trp Ser Xaa Trp Ser
  1
<210> 3
<211> 86
<212> DNA
<213> Homo sapiens
```

	<400> 3						
		atttccccga ctgccatctc	aatctagatt aattag	tccccgaaat	gatttccccg	aaatgatttc	60 86
	<210 > 4 <211 > 27 <212 > DNA <213 > Homo	sapiens					
	<400> 4 gcggcaaget	ttttgcaaag	cctaggc				27
	<210> 5 <211> 271 <212> DNA <213> Homo	sapiens					
	<400> 5						
	ctcgagattt aaatatctgc gcccctaact ttatgcagag	catctcaatt ccgcccagtt gccgaggccg	tagatttccc agtcagcaac ccgcccattc cctcggcctc gcaaaaagct	catagtcccg tccgccccat tgagctattc	cccctaactc ggctgactaa	cgcccatccc ttttttttat	60 120 180 240 271
	<210> 6 <211> 32 <212> DNA <213> Homo	sapiens					
	<400> 6 gcgctcgagg	gatgacagcg	atagaacccc	gg			32
	<210> 7 <211> 31 <212> DNA <213> Homo	sapiens					
٠	<400> 7 gcgaagcttc	gcgactcccc	ggatccgcct	С			31
	<210 > 8 <211 > 12 <212 > DNA <213 > Homo	sapiens					
	<400> 8 ggggactttc	cc				,	12
	<210> 9 <211> 73 <212> DNA <213> Homo	sapiens					
	<400> 9 gcggcctcga	ggggactttc	ccggggactt	tccggggact	ttccgggact	ttccatcctg	60

```
73
ccatctcaat tag
<210> 10
<211> 256
<212> DNA
<213> Homo sapiens
<400> 10
ctcgagggga ctttcccggg gactttccg ggactttcca tctgccatct
                                                                         60
caattagtca gcaaccatag tecegeeect aacteegeec atecegeece taacteegee
                                                                        120
cagtteegee catteteege cecatggetg actaattttt tttatttatg cagaggeega
                                                                        180
ggccgcctcg gcctctgagc tattccagaa gtagtgagga ggcttttttg gaggcctagg
                                                                        240
                                                                        256
cttttgcaaa aagctt
<210> 11
<211> 1377
<212> DNA
<213> Homo sapiens
<400> 11
ggcacgagaa aacettgagg tgattcatet tecaggetet cettecatea agteteteet
                                                                         60
ccctageget etgggteett aatggeagea geegeegeta ccaagateet tetgtgeete
                                                                        120
cogettetge teetgetgte eggetggtee egggetggge gageegacee teactetett
                                                                        180
tgctatgaca tcaccgtcat ccctaagttc agacctggac cacggtggtg tgcggttcaa
                                                                        240
ggccaggtgg atgaaaagac ttttcttcac tatgactgtg gcaacaagac agtcacacct
                                                                        300
                                                                        360
gtcagtcccc tggggaagaa actaaatgtc acaacggcct ggaaagcaca gaacccagta
ctgagagagg tggtggacat acttacagag caactgcgtg acattcagct ggagaattac
                                                                        420
acacccaagg aacccctcac cctgcaggcc aggatgtctt gtgagcagaa agctgaagga
                                                                        480
cacagcagtg gatcttggca gttcagtttc gatgggcaga tcttcctcct ctttgactca
                                                                        540
gagaagagaa tgtggacaac ggttcatcct ggagccagaa agatgaaaga aaagtgggag
                                                                        600
aatgacaagg ttgtggccat gtccttccat tacttctcaa tgggagactg tataggatgg
                                                                        660
cttgaggact tcttgatggg catggacagc accctggagc caagtgcagg agcaccamtc
                                                                        720
                                                                        780
gccatgtcyt caggcacaac ccaactcagg gccacagcca ccaccctcat cctttgctgc
ctcctcatca tcctcccctg cttcatcctc cctggcatct gaggagagtc ctttagagtg
                                                                        840
                                                                        900
acaggttaaa gctgatacca aaaggctcct gtgagcacgg tcttgatcaa actcgccctt
                                                                        960
ctgtctggcc agctgcccac gacctacggt gtatgtccag tggcctccag cagatcatga
tgacatcatg gacccaatag ctcattcact gccttgattc cttttgccaa caattttacc
                                                                       1020
agcagttata cctaacatat tatgcaattt tctcttggtg ctacctgatg gaattcctgc
                                                                       1080
acttaaagtt ctggctgact aaacaagata tatcattttc tttcttctct ttttgtttgg
                                                                      1140
aaaatcaagt acttetttga atgatģatet etttettgea aatgatattg teagtaaaat
                                                                      1200
aatcacgtta gacttcagac ctctggggat tctttccgtg tcctgaaaga gaatttttaa
                                                                      1260
attatttaat aagaaaaaat ttatattaat gattgtttcc tttagtaatt tattgttctg
                                                                      1320
tactgatatt taaataaaga gttctatttc ccaaaaaaaa aaaaaaaaa aaaaaaaa
                                                                       1377
<210> 12
<211> 1260
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (510)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (542)
<223> n equals a,t,g, or c
```

```
<400> 12
agaaggccat ggtctcccca cggatgtccg ggctcctctc ccagactgtg atcctagcgc
                                                                        60
                                                                       120
tcattttcct cccccagaca cggcccgctg gcgtcttcga gctgcagatc cactctttcg
ggccgggtcc aggccctggg gccccgcggt ccccctgccg cctcttcttc agagtctgcc
                                                                       180
                                                                       240
tgaagcctgg gctctcagag gaggccgccg agtccccgtg cgccctgggc gcggcgctga
gtgcgcgcgg accggtctac accgagcagc ccggagcgcc cgcgcctgat ctcccactgc
                                                                       300
                                                                       360
ccgacggcct cttgcaggtg cccttccggg acgcctggcc tggcaccttc tctttcatca
tegaaacetg gagagagaa ttaggagace agattggagg geeegeetgg ageetgetgg
                                                                       420
cgcgcgtggc tggcaggcgg cgcttggcag ccggaggccg tgggcccgga acattcagcg
                                                                       480
cgcaggcgcc tgggagctgc gcttctcgtn ccgcgcgcgc tgcgagccgc ctgccgtcgg
                                                                       540
gnccgcgtgc acgcgcctct gccgtccgcg cagcgccccc tcgcggtgcg gtccgggact
                                                                       660
gegeceetge geacegeteg aggeegaatg tgaggegeeg eeggtgtgee gageaggetg
cagecetgag catggettet gtgaacagee eggtgaatge egatgeetag agggetggae
                                                                       720
                                                                       780
tggacccctc tgcacggtcc ctgtctccac cagcagctgc ctcagcccca ggggcccgtc
                                                                       840
ctctgctacc accggatgcc ttgtccctgg gcctgggccc tgtgacggga acccgtgtgc
caatggaggc agctgtagtg agacacccag gtcctttgaa tgcacctgcc cgcgtgggtt
                                                                       900
                                                                       960
ctacgggctg cggtgtgagg tgagcggggt gacatgtgca gatggaccct gcttcaacgg
eggettgtgt gtegggggtg cagaccetga etetgeetae atetgeeaet geecaeeegg
                                                                      1020
                                                                      1080
 tttccaaggc tccaactgtg agaagagggt ggaccggtgc agcctgcagc catgccgcaa
                                                                      1140
 tggeggaete tgeetggaee tgggeeaege eetgegetge egetgeegeg eegettegeg
 ggtcctcgct gcgagcacga cctggacgac tgcgcgggcc gcgcctgcgc taacggcggc
                                                                      1200
 acgtgtgtgg agggcggcgg cgcgcaccgc tgctcctgcg cgctgggctt cggcggccgc
                                                                      1260
 <210> 13
 <211> 2774
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (2055)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (2740)
 <223> n equals a,t,g, or c
<220>
 <221> SITE
 <222> (2763)
 <223> n equals a,t,g, or c
 <400> 13
 aattccccgg ggggaagtgg cttcatttca gtggctgact tccagagagc aatatggctg
                                                                         60
                                                                        120
 gttccccaac atgcctcacc ctcatctata tcctttggca gctcacaggg tcagcagcct
                                                                        180
 ctggacccgt gaaagagctg gtcggttccg ttggtggggc cgtgactttc cccctgaagt
 ccaaagtaaa gcaagttgac tctattgtct ggaccttcaa cacaacccct cttgtcacca
                                                                        240
                                                                        300
 tacagccaga agggggcact atcatagtga cccaaaatcg taatagggag agagtagact
                                                                        360
 teccagatgg aggetactee etgaagetea geaaactgaa gaagaatgae teagggatet
                                                                        420
 actatgtggg gatatacagc tcatcactcc agcagecete caeecaggag taegtgetge
                                                                        480
 atgtctacga gcacctgtca aagcctaaag tcaccatggg tctgcagagc aataagaatg
                                                                        540
 gcacctgtgt gaccaatctg acatgctgca tggaacatgg ggaagaggat gtgatttata
                                                                        600
 cctggaaggc cctggggcaa gcagccaatg agtcccataa tgggtccatc ctccccatct
 cctggagatg gggagaaagt gatatgacct tcatctgcgt tgccaggaac cctgtcagca
                                                                        660
                                                                        720
 gaaacttctc aagccccatc cttgccagga agctctgtga aggtgctgct gatgacccag
                                                                        780
 attectecat ggteeteetg tgteteetgt tggtgeeeet eetgeteagt etetttgtae
                                                                        840
 900
 agagagtgga catttgtcgg gaaactccta acatatgccc ccattctgga gagaacacag
```

```
agtacgacac aatcctcac actaatagaa caatcctaaa ggaagatcca gcaaatacgg
                                                                       960
                                                                      1020
tttactccac tgtggaaata ccgaaaaaga tggaaaatcc ccactcactg ctcacgatgc
                                                                      1080
cagacacacc aaggetattt geetatgaga atgttateta gacagcagtg cactececta
agtototgot caaaaaaaaa acaattotog goocaaagaa aacaatcaga agaattoact
                                                                      1140
gatttgacta gaaacatcaa ggaagaatga agaacgttga cttttttcca ggataaatta
                                                                      1200
tototgatgo ttotttagat ttaagagtto ataattocat coactgotga gaaatotoot
                                                                      1260
caaacccaga aggtttaatc acttcatccc aaaaatggga ttgtgaatgt cagcaaacca
                                                                      1320
taaaaaaagt gcttagaagt attcctatar aaatgtaaat gcaaggtcac acatattaat
                                                                      1380
gacageetgt tgtattaatg atggeteeag gteagtgtet ggagttteat tecateecag
                                                                      1440
ggcttggatg tcaggattat accaagagtc ttgctaccag gagggcaaga agaccaaaac
                                                                      1500
agacagacaa gtccagcaga agcagatgca cctgacaaaa atggatgtat taattggctc
                                                                      1560
tataaactat gtgcccagca ctatgctgag cttacactaa ttggtcagac rtgctgtctg
                                                                      1620
ccctcatgaa attggctcca aatgaatgaa ctactttcat gagcagttgt agcaggcctg
                                                                      1680
accacagatt cccagagggc caggtgtgga tccacaggac ttgaaggtca aagttcacaa
                                                                      1740
agatgaagaa tcagggtagc tgaccatgtt tggcagatac tataatggag acacagaagt
                                                                      1800
gtgcatggcc caaggacaag gacctccagc caggcttcat ttatgcactt gtgctgcaaa
                                                                      1860
agaaaagtct aggttttaag gctgtgccag aacccatccc aataaagaga ccgagtctga
                                                                      1920
agtcacattg taaatctagt gtaggagact tggagtcagg cagtgagact ggtggggcac
                                                                      1980
ggggggcagt gggtacttgt aaacctttaa agatggttaa ttcattcaat agatatttat
                                                                      2040
taagaaccwa tgcgncccgg catggtggct cacacctgta atcccagcac tttgggaggc
                                                                      2100
caaggtgggt gggtcatctg aggtcaggag ttcaagacca gcctggccaa catggtgaac
                                                                      2160
cccatctcta ctamagatac aaamatttgc tgagcgtggt ggtgtgcacc tgtaatccca
                                                                      2220
qctactcqaq aqqccaaqqc atgagaatcg cttgaacctg ggaggtggag gttgcagtga
                                                                      2280
gctgagatgg caccactgca ytccggccta ggcaacgaga gcaaaactcc aatacaaaca
                                                                      2340
aacaaacaaa cacctgtgct aggtcagtct ggcacgtaag atgaacatcc ctaccaacac
                                                                      2400
                                                                      2460
agageteace atetettata ettaagtgaa aaacatgggg aaggggaaag gggaatgget
gettttgata tgttccctga cacatatett gaatggagae etceetacca agtgatgaaa
                                                                      2520
gtgttgaaaa acttaataac aaatgcttgt tgggcaagaa tgggattgag gattatcttc
                                                                      2580
totcagaaag gcattgtgaa ggaattgago cagatototo tocotactgo aaaaccotat
                                                                      2640
                                                                      2700
tgtagtaaaa aagtcttctt tactatctta ataaaacaga tattgtgaga mamawaaaaa
                                                                      2760
aaaaaaaaa aaactcgagg gggggcccgg tacacaattn aacccggagt ttgccaatta
aantgtctaa tcat
                                                                      2774
<210> 14
<211> 531
<212> DNA
<213> Homo sapiens
<400> 14
gttctaattc actgcccaca gccctgctga taaaagcaaa gctcatctct gccgtgctgc
                                                                       60
agggaaccet attteettee cetgeagete agecacetee teeteteagg tetgeeagee
                                                                       120
atgaaacttc tttacctgtt tcttgccatc cttctggcca tagaagaacc agtgatatca
                                                                       180
                                                                      240
ggcaaacgcc acatcettcg atgcatgggt aacagtggaa tttgtagggc ctcttgcaaa
aagaacgaac agccctacct ctattgcaga aattgtcagt cctgctgcct ccagtcctac
                                                                      300
atgaggataa gcatttctgg caaagaggaa aataccgact ggtcttatga gaagcagtgg
                                                                      360
ccaagactac cttgagtgct ggtgattacc attctcaagc tctctgggca cagagacctg
                                                                      420
480
aaamaaaaaa aaaaaaaama maawaamwaa amawaaaaaa aaaaactcqa q
                                                                      531
<210> 15
<211> 1205
<212> DNA
<213> Homo sapiens
<400> 15
ggcagagett ttgtgcagea ccetttaaag ggtgactegt cceaettgtg ttetetetee
                                                                       60
tggtgcagag ttgcaagcaa gtttatcgga gtatcgccat gaagttcgtc ccctgcctcc
                                                                      120
tgctggtgac cttgtcctgc ctggggactt tgggtcaggc cccgaggcaa aagcaaggaa
                                                                      180
gcactgggga ggaattccat ttccagactg gagggagaga ttcctgcact atgcgtccca
                                                                      240
```

		aaaaaaatat	aacttcacat	caactaccac	aacacagacc	300
gcagcttggg (gcaaggegee	ggagaageee	ggccccgcgc	ccadacttc	actactaacc	360
agacctactg	gtgtgagtac	agggggcagc	agetaageg	ccttcaccat	acataccada	420
ccaaatctta	ctggaatcaa	gecetycagg	agergaggeg	2000000000	catatocago	480
gggccccggt	gcttaggcca	teegtgtgea	gggaggccgg	accccaggec	actaagaaga	540
aggtgacttc	cagcctcaag	ggcagcccag	ageccaacca	geageergag	gccgggacgc	600
catctctgag	gcccaaggcc	acagtgaaac	tcacagaagc	aacacagctg	ggaaaggacc	
cgatggaaga	gctgggaaaa	gccaaaccca	ccacccgacc	cacagccaaa	cctacccagc	660
ctggacccag	qcccqqaqgg	aatgaggaag	caaagaagaa	ggcctgggaa	cattgitgga	720
aacccttcca	aaccctatac	qcctttctca	tcagcttctt	ccgagggtga	caggtgaaag	780
acccctacag	atctgacctc	tccctgacag	acaaccatct	ctttttatat	tatgccgctt	840
tcaatccaac	gttctcacac	tqqaagaaga	gagtttctaa	tcagatgcaa	cggcccaaat	900
tcttgatctg	cagettetet	gaagtttgga	aaagaaacct	tcctttctgg	agtttgcaga	960
gttcagcaat	atgataggga	acaggtgctg	atqqqcccaa	gagtgacaag	catacacaac	1020
tacttattat	ctgtagaagt	tttactttat	tgatctgage	cttctatgaa	agtttaaata	1080
tgtaacgcat	tcatcaattt	ccagtattca	gtaaatagca	gctatgtgtg	tgcaaaataa	1140
aagaatgatt	teaegaacce	222222222	aaactcgggg	agaaccaata	cccattyqcc	1200
	CCayaaaaaa	aaaaaaaaaa	aaacccgggg	222222-		1205
ccaag					_	
					-	
<210> 16						
<211> 841						
<212> DNA						
<213> Homo	sapiens					
<400> 16						
agactacaga	aattcggcac	gagctcgtgc	cgactctcag	agcagggaac	agcgggggaa	60
aatgtttaca	ctccatqcac	aatctgtgct	tccagtccct	caccctatgt	ggcccaatag	120
ctggctggat	ttcacactta	attggtattt	ttttctgcct	tcttcccctg	ccccactga	180
ctcctctcct	ctccctttga	ttqtactcaa	ggttctgggg	cctgggccct	gggtgggtac	240
caacagctgc	teactattee	catqtcctct	ctccagcttt	gctgtgtttc	tctgctacct	300
aatctcagtg	actgtgaaag	gacattgtgt	ctgagccatg	gccagccgct	ggctggcccc	360
atactagag	ccccttctat	tatttagata	gccatctcct	actagaecte	cctgactgta	420
anatatatat	actatttatt	aggtttttgg	taggaggctg	tgataagttc	caatgagctg	480
adacticige	ggatatgtca	agaagctgat	gggaacttgg	ccaattctqq	cagatatcag	540
CCacccccc	ggacacgcca	agaageegae	tacacatoto	ggtcaaccac	tgtgtgctca	600
gcccccagtt	cagecccage	catcutttt	tetteratee	ttgcactcac	ttaccetace	660
gagggtcagt	CCCCCCCCC	geogegeeee	gagattactt	tetaggggat	ttcccctgcc	720
ccagtcacga	tgacccctaa	ageteeete	gacaccaac	acaddacact	ccctagtgaa	780
ggggcaaacc	tgagatttet	ccgtggacct	gacagecaag	gcagggcacc	gtctcctgag	840
gccagtgcca	gcacgtgcat	ggttcacaga	aaaggateet	gggcccagaa	tctcgagggg	841
g						0.1-
-						
<210> 17						
<211> 1012						
<212> DNA					*	
<213> Homo	sapiens					
<400> 17						
tcqacccacg	cgtccgctct	tatgcagcct	taagtttgtc	: tgtccatggt	teccatettt	60
gctttatatc	cctggtctta	ccacgctctt	ctgaagtacc	catcctttco	ttcaaatact	120
tttaggaaaa	aggtetgata	atagtgattt	ataatgtagt	tggatttaag	tcgttgtttt	180
acqtctcaaq	aggcatttac	attttgactt	. ttcctataaa	tgtgaatgaa	a agatacctc	240
tttcaaaaaa	tttagagctt	. ccctgtgcaa	. gtgttggagg	r tctcagggag	g gagagttctc	300
cctactaatt	cttttqaatc	acaccaaatq	aatggcttgc	tactgttcc	tcacaccttc	360
atattotoca	tagtttttcc	cacctcctta	gctatacago	: tgctgttcct	cctgcctaaa	420
atatataaaa	attecetead	tattcaactc	agcccacato	ttacatctto	cctaaggatg	480
+++++a+aat	actatostag	: attrctrc	tatgagttcc	: tctqttatat	tgcgtcacca	540
tasatasaat	tagastttat	trattrette	tttcaattca	ctcatttcct	ttctcccaac	600
ccaccgaggt	attanagan	· actoratecto	, tatttetet	ttctattta	a acagtgccta	660
ctagtgtctt	cucaayaac	accyaticity	accessation	, acatogogai	atgtctaggc	720
gcaaagagac	aggaatggca	. gccaatgaat	. accidadidu	taatyayaa	tateetteat	780
ccatgtatat	ttatgtatat	tttatctage	ageattttge	. Laaalyaati	tatccttcat	, 50

```
tagaagaaga aaacatatca tacttaagga ccattattaa aaattcttaa aagtaaaaaa
                                                                       840
atagacctgt ctgggcacag tggcacatgc ccgtaatctc attactttgg gaggctgagg
                                                                       900
tgggaggact gcttgaggcc aggagtttaa ggccagccca gataacatag taagacccca
                                                                       960
1012
<210> 18
<211> 3354
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1084)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1463)
<223> n equals a,t,g, or c
<400> 18
                                                                        60
gggatgtgct gtgtcctgtc tatgacctgg acaacaacgt agccttcatc ggcatgtacc
agacgatgac caagaaggcg gccatcaccg tacagcgcaa agacttcccc agcaacagct
                                                                       120
tttatgtggt ggtggtggtg aagaccgaag accaagcctg cgggggctcc ctgcctttct
                                                                       180
accepttege agaagatgaa ceggtegate aagggcaceg ceagaaaace etgteagtge
                                                                       240
                                                                       300
tggtgtctca agcagtcacg tctgaggcat acgtcagtgg gatgctcttt tgcctgggta
tatttctctc cttttacctg ctgaccgtcc tcctggcctg ctgggagaac tggaggcaga
                                                                       360
                                                                       420
agaagaagac cctgctggtg gccattgacc gagcctgccc agaaagcggt caccctcgag
teetggetga ttettteet ggeagtteee ettatgaggg ttacaactat ggeteetttg
                                                                       480
agaatgtttc tggatctacc gatggtctgg ttgacagcgc tggcactggg gacctctctt
                                                                       540
acggttacca gggccgctcc tttgaacctg taggtactcg gccccgagtg gactccatga
                                                                       600
getetgtgga ggaggatgae tacgacacat tgaccgacat cgattecgae aagaatgtea
                                                                       660
                                                                       720
ttcgcaccaa gcaatacctc tatgtggctg acctggcacg gaaggacaag cgtgttctgc
                                                                       780
ggaaaaagta ccagatctac ttctggaaca ttgccaccat tgctgtcttc tatgcccttc
                                                                       840
ctgtggtgca gctggtgatc acctaccaga cggtggtgaa tgtcacaggg aatcaggaca
tetgetacta caactteete tgegeecaee eactgggeaa teteagtetg cettgtgttg
                                                                       900
ccccttctag cgccttcaac aacatcctca gcaacctggg gtacatcctg ctggggctgc
                                                                       960
                                                                      1020
ttttcctgct catcatcctg caacgggaga tcaaccacaa ccgggccctg ctgcgcaatg
                                                                      1080
acctetgtge cetggaatgt gggateecea aacaetttgg gettttetae gecatgggea
cagnectgat gatggaggg ctgctcagtg cttgctatca tgtgtgcccc aactatacca
                                                                      1140
                                                                      1200
atttccagtt tgacacatcg ttcatgtaca tgatcgccgg actctgcatg ctgaagctct
accagaagcg gcacccggac atcaacgsca gcgsctacag tgcctacgcc tgcctggcca
                                                                      1260
ttgtcatctt cttctctgtg ctgggcgtgg tctttggcaa agggaacacg gcgttctgga
                                                                      1320
tegtettete cateatteac ateategeea ecetgeteet cageaegeag etetattaca
                                                                      1380
                                                                      1440
tgggccggtg gaaactggac tcggggatct tccgccgcat cctccacgtg ctctacacag
actgeatecg geagtgeage ggngcegete tacgtggace geatggtget getggteatg
                                                                      1500
                                                                      1560
ggcaacgtca tcaactggtc gctggctgcc tatgggctta tcatgcgccc caatgatttc
getteetact tgttggccat tggcatetge aacetgetee tttacttege ettetacate
                                                                      1620
                                                                      1680
atcatgaagc tccggagtgg ggagaggatc aagctcatcc ccctgctctg catcgtttgc
accteegtgg tetggggett egegetette ttettettee agggaeteag cacetggeag
                                                                      1740
aaaacccctg cagagtcgag ggagcacaac cgggactgca tcctcctcga cttctttgac
                                                                      1800
gaccacgaca totggcactt cototoctoc atogccatgt togggtoott cotggtgttr
                                                                      1860
                                                                      1920
ctgacactgg atgacgacct ggatactgtg cagcgggaca agatctatgt cttctagcag
gagetgggee ettegettea ceteaagggg eeetgagete etttgtgtea tagaeeggte
                                                                      1980
actotytegt getytyggga tyagtoccay caccyctyce caycactyga tygcaycagy
                                                                      2040
acagccaggt ctagcttagg cttggcctgg gacagccatg gggtggcatg gaaccttgca
                                                                      2100
gctgccctct gccgaggagc aggcctgctc ccctggaacc cccagatgtt ggccaaattg
                                                                      2160
                                                                      2220
etgetttett eteagtgttg gggeetteea tgggeeeetg teetttgget eteeatttgt
ccctttgcaa gaggaaggat ggaagggaca ccctccccat ttcatgcctt gcattttgcc
                                                                      2280
                                                                      2340
egteeteete eecacaatge eecageetgg gacetaagge etettittee teecataete
```

ccactccagg	gcctagtctg	gggcctgaat	ctctgtcctg	tatcagggcc	ccagttctct	2400
		atcactgccc				2460
		gctggtgcca				2520
		tccctctgac				2580
gctcagccca	atttgagaac	cgccttctga	ttcaagaggc	tgaattcaga	ggtcacctct	2640
tcatcccatc	agctcccaga	ctgatgccag	caccaggact	ggagggagaa	gcgcctcacc	2700
ccttcccttc	cttctttcca	ggcccttagt	cttgccaaac	cccagctggt	ggcctttcag	2760
		aatgtccagg				2820
cgttctgcct	ccatagctgt	gggcacccca	gtgcytacct	tagaaagggg	cttcaggaag	2880
		cgtgcccagt				2940
ttctaagttt	ccgtccagtc	ttcaggcaag	ttctgtgtta	gtcatgcaca	cacataccta	3000
tgaaaccttg	gagtttacaa	agaattgccc	cagctctggg	caccctggcc	accctggtcc	3060
ttggatcccc	ttcgtcccac	ctggtccacc	ccagatgctg	aggatggggg	agctcaggcg	3120
gggcctctgc	tttggggatg	ggaatgtgtt	tttctcccaa	acttgttttt	atagctctgc	3180
ttgaagggct	gggagatgag	gtgggtctgg	atcttttctc	agagcgtctc	catgctatgg	3240
		aatgaatttg				3300
aaaaaaaaa	aaaaaaaaa	aaaaaaaaa	aaaaaaaaa	aaaagggcgg	ccgc	3354

<210> 19 <211> 1796 <212> DNA

<213> Homo sapiens

<400> 19

60 ggaaggagga agttcaaggg cgagartrag taccagcaga aggctgggag tctgtagttt 120 gttcctgctg ccaggctcca ctgaggggaa cggggacctg tctgaagaga agatgcccct getgacacte tacetgetee tettetgget etcaggetae tecattgeca etcaaateae 180 cggtccaaca acagtgaatg gcttggagcg gggctccttg accgtgcagt gtgtttacag 240 atcaggctgg gagacctact tgaagtggtg gtgtcgagga gctatttggc gtgactgcaa 300 360 gatcettgtt aaaaccagtg ggtcagagca ggaggtgaag agggaccggg tgtccatcaa 420 ggacaatcag aaaaaccgca cgttcactgt gaccatggag gatctcatga aaactgatgc 480 tgacacttac tggtgtggaa ttgagaaaac tggaaatgac cttggggtca cagttcaagt 540 gaccattgac ccagcaccag tcacccaaga agaaactagc agetccccaa ctctgaccgg ccaccacttg gacaacaggc acaagctcct gaagctcagt gtcctcctgc ccctcatctt 600 660 caccatattk ytgytgcttt tggtggccgc ctcactcttg gcttggagga tgatgaagta 720 ccagcagaaa gcagccggga tgtccccaga gcaggtactg cagcccctgg agggcgacct 780 ctgctatgca gacctgaccc tgcagctggc cggaacctcc ccgcgaaagg ctaccacgaa 840 gettteetet geecaggttg accaggtgga agtggaatat gteaceatgg etteettgee gaaggaggac atttcctatg catctctgac cttgggtgct gaggatcagg aaccgaccta 900 960 ctgcaacatg ggccamctca gtagccamct ycccggcagg ggccctgagg agcccacgga atacagcacc atcagcaggc cttagcctgc actccaggct ccttcttgga ccccaggctg 1020 tgagcacact cetgecteat egacegtetg ecceetgete eceteateag gaccaaceeg 1080 1140 gggactggtg cctctgcctg atcagccagc attgccccta gctctgggtt gggcttgggg 1200 ccaagtetea gggggettet aggagttggg gttttetaaa egteecetee tetetacata gttgaggagg gggctaggga tatgctctgg ggctttcatg ggaatgatga agatgataat 1260 gagaaaaatg ttatcattat tatcatgaag taccattatc ataatacaat gaacctttat 1320 ttattgccta ccacatgtta tgggctgaat aatggccccc aaagatatct gtgtcctaat 1380 cctcagaact tgtgactgtt accttctgtg gcagaaaggg acagtgcaga tgtatgtaag 1440 ttaaggactt tgagatagag aggttattct tgctgattca ggtgggccca aaatatcacc 1500 acaagggtcc tcataagaaa gaggccagaa ggtcaaagag gtagagacaa agtgatgatg 1560 1620 gaagtggacg tgggtgtgac gtgagcaggg gccatgaatg ccgcagcctt cagatgccag 1680 aaagggaaag gaatggattc ccctgcctgg agcctccaaa agaaaccagc cctgcccacg 1740 cettgacttg ageceattga aactgatett gageteetgg eeteeagaat tgeaggagaa 1796

<210> 20

<211> 1424

<212> DNA

<213> Homo sapiens

```
<400> 20
qcqcatctct tctctcccc cagctgcact ctgcctgcat cctggctttt tcatggcgtg
                                                                         60
aatotootto coggicagga accoeggoig accitototg toccaigeoi ggcccigcoi
                                                                        120
cccccgcagg ctggtttctg cttctcctct accctctccc tcctgcaccc tgcctggtgc
                                                                        180
                                                                        240
cctggggcag cccacctggc acaccagcca ggcccccggc cgctggccat ccccacagac
tecetgetgt geacgeacet etggtagggg acetggeace tecetgtece etcaeggete
                                                                        300
gcctggcacc ggccccagcc actgtctctg actttgcacc ttgggccagg agccccgata
                                                                        360
getgetetge tgecaactee tggggtetee tgtgecatee gggggggaee tgecageete
                                                                        420
tegtgeetgg gecagggtee geeteeetgg gggaeetgtg acatgeatgt ttgggeacac
                                                                        480
agggtccgtc ccctccgctc tgatgctgct gtgggtgctt cccatgttct gctgtcatga
                                                                        540
ccqacacttc cctgggtgcc ccatgtggca tctgtgggtg ccccgtgtgg cgtcagtggg
                                                                        600
tgccccatgt ggcgtcagtg ggtgccccgt gtggcgtctg tgggtgccgc gtgtgacgtc
                                                                        660
agtgggtgcc ccatgtggca tctgtgcagc catgtcaggt gtgcaaagcc tcaattccaa
                                                                        720
gaagggggat getgggteec aggteacete caettacaat tetgacaget gegacaaace
                                                                        780
                                                                        840
ctcctgataa atgaccgtcc ggtttactca ccagycgcag ccagtctctg cggctttgcc
aatctgttag agtaaactca ctcgtcgagt taatttgcat ttttgtaatt atgaatgaga
                                                                        900
ccaagcatct gttcgtatct actcgcagtt ttaatttttc ctctaaatcc ccatgcaagg
                                                                        960
actatgettt eteegetgag gtaggaetge egagegeece tgegeateag ggetegeete
                                                                       1020
agectgggcg ccgcacacac gcttgctgtg tgtgttgcca gcttctaacg ttgtgcgtgt
                                                                       1080
gtcttctcac atccaagagc tctaagtgcc catgtgtgga atctgacctg tttatcttca
                                                                       1140
                                                                       1200
gcagctttgc aggaggatgt tctccacccc gaggctacag ggacagcttt cctttgtttc
                                                                       1260
tgctaatatt tttataattt taagatatcc agacctaatc tgtttgaagc ctcactctct
ggggtgtgaa cttggagggc accctccggc tggcaccata aggaagggct cctcctgccc
                                                                       1320
ctgagacgct atccttgcag ccgcggagcc tcacatctcc aggtctctgc atggccgcgg
                                                                       1380
                                                                       1424
gcgagggcc ccttggagcc cagaggacgc agtcggccct cgag
<210> 21
<211> 1816
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (504)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1405)
<223> n equals a,t,g, or c
<400> 21
gcgtggatcc aagatggcga cggcgatgga ttggttgccg tggtctttac tgcttttctc
                                                                         60
                                                                        120
cetgatgtgt gaaacaagcg cettetatgt geetggggte gegeetatea aettecacea
                                                                        180
gaacgatccc gtagaaatca aggctgtgaa gctcaccagc tctcgaaccc agctacctta
tgaatactat tcactgccct tctgccagcc cagcaagata acctacaagg cagagaatct
                                                                        240
gggagaggtg ctgagagggg accggattgt caacacccct ttccaggttc tcatgaacag
                                                                        300
cgagaagaag tgtgaagttc tgtgcagcca gtccaacaag ccagtgaccc tgacagtgga
                                                                        360
gcagagccga ctcgtggccg agcggatcac agaagactac tacgtccacc tcattgctga
                                                                        420
caacctgcct gtggccaccc ggctggagct ctactccaac cgagacagcg atgacaagaa
                                                                        480
gaaggaaagt gatatcaaat gggnctctcg ctgggacact tacctgacca tgagtgacgt
                                                                        540
ccagatccac tggttttcta tcattaactc cgttgttgtg gtcttcttcc tgtcaggtat
                                                                        600
cctgagcatg attatcattc ggaccctccg gaaggacatt gccaactaca mcaaggagga
                                                                        660
tgacattgaa gacaccatgg aggagtctgg gtggaagttg gtgcacggcg acgtcttcag
                                                                        720
                                                                        780
gccccccca gtaccccatg atcctcaget ccctgctggg ctcaggcatt cagctgttct
qtatqatcct catcqtcatc tttgtagcca tgcttgggat gctgtcgccc tccagccggg
                                                                        840
gageteteat gaccacagee tgetteetet teatgtteat gggggtgttt ggeggatttt
                                                                        900
ctgctggccg tctgtaccgc actttaaaag gccatcggtg gaagaaagga gccttctgta
                                                                        960
                                                                       1020
eggeaactet gtaccetggt gtggtttttg gcatetgett egtattgaat tgetteattt
```

ggggaaagca ctcatcagga gcggtgccct ttcccaccat ggtggctctg ctgt	gcatgt 1080
ggttcgggat ctccctgccc ctcgtctact tgggctacta cttcggcttc cgaa	366666
Catatgacaa coctatgaca accaacaaa thagasaaa cottagacta cyaa	agcagc 1140
catatgacaa ccctgtgcgc accaaccaga ttccccggca gatccccgag cagc	ggtggt 1200
acatgaaccg atttgtgggc atcctcatgg ctgggatctt gcccttcggc gcca	tgttca 1260
togagetett etteatette agtgetatet gggagaatea gttetattae etet	ttggct 1320
teetgkteet tggttteate ateetggtgg kateetgkte acaaateage ateg	tcatgg 1380
tgkactteca retgtgtgea gaggnattae egytggtggt ggagaaatty eeta	gtctcc 1440
gggggctctg cattcwacgt cctggtttat gccatctttw atttcqttaa caaq	tgactg 1500
cagogocaag oggoatocao caagoatoaa gttggaqaaa aqqqaacoca agoa	gtagag 1560
agegatattg gagtettttg tteatteaaa tettggattt tttttttee etaa	gagatt 1620
ctctttttag ggggaatggg aaacggacac ctcataaagg gttcaaagat catc	aatttt 1680
totgactttt taaatcatta toattattat ttttaattaa aaaaatgoot gtat	gccttt 1740
ttttggtcgg attgtaaata aatataccat tgtcctacaa aaaaaaaaaa	aaaact 1800
tctcggccgc aaggaa	
33 333	1816
<210> 22	
<211> 1495	
<212> DNA	
<213> Homo sapiens	
<400> 22	
cccccgggct gcaggaattc ggcacgagct gacatatatt tgagaaactg ggcta	ectgaa 60
agecetaace ecaettgget geattitatt tggtaaceag tgaggeaaae accet	tgcca 120
gacccctacc atccatcttg atgtggttcc tgcactggac actgcttqqq tacgc	raccta 180
cccagatett gggaatgtgg geagtggete etetgaagea ecagtgggea gagga	itgagt 240
catggtatec teceggeace cetecetetg cettgeattt tacttgtgat ceagg	stactt 300
cctattgaag acagtggacc agcacatgaa gctggccttc tccaaggtct tgcga	cagac 360
aaagaagaac ccctctaatc ccaaggataa aagcacgagt atccggtact tgaag	gccct 420
tggaatacac cagactggcc agaaagttac agatgacatg tatgcagaac agacg	gaaaa 480
tocagagaat ccattgagat gtcccatcaa gctctatgat ttctacctct tcaaa	tagaa 540
ccagagtgtg aaaggccgga atgaccacct tttacctgac acctgagcca gtggt	tgccc 540
ccaacagccc aatctggtac tcagtccagc ctatcagcag agagcagatg ggaca	ggccc 600
tgacgcggat cctggtgata agagaaatta agaggagat agaggagatg ggaca	aatgc 660
tgacgcggat cctggtgata agagaaattc aggaggccat cgcagtggcc agtgc	aagca 720
ctatgcactg agatgccttg gccatggcac aagagaaacc agccaggaaa aacca	gacag 780
actiticacac taaagaagag gcctccattt tittitititt tittitatt ggtgt	agtta 840
cgaagcettt caggetgett etgtttaaaa tataaaagaa aactttgeee eettt	gcatc 900
ttcataaacc tgctgcggca gactcctcag ccgatggtgg ctctgggttt ccttg	agtgt 960
catatgteet agaaagttge tggetgaete ttttttgtet ggggeetggg gaaag	ggctt 1020
ggactgtgaa aagaaatgtg gcccctttcc atcttcaaga gagatggaat taatg	atgga 1080
tggaccctgg agggaatctc cccagccgac ttccactggg ctgacagact ttgct	gacca 1140
caggggaacg atgttctttt ctttcttcat gatcagacat aaacttagca tctta	atgga 1200
agaaaaatga ggggaacttc aattatgatt tattaaagac aatttctatt acacc	ctcct 1260
ttatgacaag tgacatttta gatgtaaaag taaaaacttt accatgcctt ttttt	ttttt 1320
gttggcctaa cattgaggcc ttaaaacctg aggctcctgt gcctgatgga attct	tgtaa 1380
catacacttg tgtatcatat aaagatacca ctctgtttct cttatgtatt cttac	tctag 1440
ttgtttatta agaatgacaa gcacgtcttt tcaaaaaaaa aaaaaaaaaa	1495
_	
<210> 23	
<211> 1541	
<212> DNA	
<213> Homo sapiens	
<400> 23	
aatteggeae gaggeaaaat gteaageaea tattaagtae eeageatgtt ttate	itttc 60
ttagtacttg tggttctccc attattacac aaagagttat gtagcattga gcgac	rtata 120
taccettgtt tgtttgtcat cagtgggaag agcagcatgt catetttet atges	ctgtc 120
aggtggaagt tetggggtag gegagaagat ggagaaaagg tgeagaacaa gteaa	aattc 180
ggggaaattt cccaatgcag cgcatgggat tactatactt gtgttgcagc attaa	igtta 240
- 3333	aactq 300
gggctctgaa gaggaagagg catggctgtc atgagggaga atacttaccc tagtco	ttag 360

```
taaggtcggg ttgaattcct gattgaagcc aagcacgcag ttaaagggat tattgaatac
                                                                         420
 cttcagagca ttcagagtta cgtgcaaagc aagtcttctg ttccaagttt ggatcgaaac
                                                                         480
 catcccagtt caaagaaaaa gaaaagaaaa caggcatcaa acacataact ttagattatc
                                                                         540
 cagtatccat ccctctcttc tggccacagt aattggtcca agggaaggac aaacacccag
                                                                         600
 gccaggacaa caaggetete eccettgcag etggtetaga gaagetteca teetcaetgg
                                                                         660
 ttatgaaget gaatgtetge aateccaaaa ceaetgteag etgtgaeete tgecaaatgg
                                                                         720
 agggaggtgg tgtgaatgaa cgaagttgac acagacaggg atgatgagag ttctggtaac
                                                                         780
ggtagagttt ctgtttccaa tcatccctac tcttgaccca agctaagatt gttcaggttt
                                                                         840
 tgaatctttt agctacccct tcaaccttct aataaccttt tgcagtcccc tgatcttccc
                                                                         900
 teceactatg taggtaagtt gataggtgee attagaaatg aaaagatgtg etgggeatgg
                                                                         960
aggeteatge etgtaetece ageaetttag gageetgagg ceagaagate aettgagaee
                                                                        1020
aggagttcaa gaccagcatg ggcaacatag tgaattcctg tctttacaaa caaatacaaa
                                                                        1080
aactagccag gtatggtggt ttgcacctgt agtctcagct actggggagg ctgaggtggg
                                                                        1140
aggatcactt gactacagga ggtcaaggct gcagtgagct gtgatcatgt tactgcactc
                                                                        1200
cagcttggtt gacagagtaa gatcctgtgt caataaaaat aaaaattaaa aaaagatatg
                                                                        1260
aaaaccttaa aattgtctac tatttattga attgctaagg tctttaaata aatcatcttc
                                                                       1320
cttattcttc acaaaaattc cagataatgt tgtaaagagg gaactgggac acaaagtgat
                                                                       1380
taagtgactc atacacatag ctactaagtg gaagaataac aattcaaacc cacatctgtg
                                                                       1440
taactctaaa gtccatgttg ttgagactac aagtaataat gaaatggagc atagccatct
                                                                       1500
actgaactaa ctgaaagtcc ttaaaaaaaaa aaaaaaaaa c
                                                                       1541
<210> 24
<211> 2133
<212> DNA
<213> Homo sapiens
<400> 24
gaatteggea egagegeta atggeagege egtggeeteg egtecatett tgeegttete
                                                                         60
teggacetgt cacaaaggag tegegeegee geegeegee eeteeeteeg gtgggeeegg
                                                                        120
gaggtagaga aaaactgcca ttggatgtcc agaatcccct gtagttgata atgttgggaa
                                                                        180
taagctctgc aactttcttt ggcattcagt tgttaaaaac aaataggatg caaattcctc
                                                                        240
aactccaggt tatgaaaaca gtacttggaa aactgaaaac tacctaaatg atcgtctttg
                                                                        300
gttgggccgt gttcttagcg agcagaagcc ttggccaggg tctgttgttg actctcgaag
                                                                        360
agcacatagc ccacttccta gggactggag gtgccgctac taccatgggt aattcctgta
                                                                        420
tctgccgaga tgacagtgga acagatgaca gtgttgacac ccaacagcaa caggccgaga
                                                                        480
acagtgcagt acccactgct gacacaagga gccaaccacg ggaccctgtt cggccaccaa
                                                                        540
ggaggggccg aggacctcat gagccaagga gaaagaaaca aaatgtggat gggctagtgt
                                                                        600
tggacacact ggcagtaata cggactcttg tagataatga tcaggaacct ccctattcaa
                                                                        660
tgataacatt acacgaaatg gcagaaacag atgaaggatg gttggatgtt gtccagtctt
                                                                        720
taattagagt tattccactg gaagatccac tgggaccagc tgttataaca ttgttactag
                                                                        780
atgaatgtcc attgcccact aaagatgcac tccagaaatt gactgaaatt ctcaatttaa
                                                                        840
atggagaagt agcttgccag gactcaagcc atcctgccaa acacaggaac acatctgcag
                                                                        900
tectaggetg ettggeegag aaactageag gteetgeaag tataggttta ettageecag
                                                                        960
gaatactgga atacttgcta cagtgtctga agttacagtc ccaccccaca gtcatgcttt
                                                                       1020
ttgcacttat cgcactggaa aagtttgcac agacaagtga aaataaattg actatttctg
                                                                       1080
aatccagtat tagtgaccgg cttgtcacat tggagtcctg ggctaatgat cctgattatc
                                                                       1140
tgaaacgtca agttggtttc tgtgcccagt ggagcttaga caatctcttt ttaaaagaag
                                                                       1200
gtagacagct gacctatgag aaagtgaact tgagtagcat tagggccatg ctgaatagca
                                                                       1260
atgatgtcag cgagtacctg aagatctcac ctcatggctt agaggctcgc tgtgatgcct
                                                                       1320
cctcttttga aagtgtgcgt tgcacctttt gtgtggatgc cggggtatgg tactatgaag
                                                                       1380
taacagtggt cacttetgge gtcatgcaga ttggetggge cactegagae agcaaattee
                                                                       1440
tcaatcatga aggctacggc attggggatg atgaatactc ctgtgcgtat gatggctgcc
                                                                       1500
ggcagctgat ttggtacaat gccagaagta agcctcacat acacccatgc tggaaagaag
                                                                       1560
gagatacagt aggatttctg ttagacttga atgaaaagca aatgatcttc tttttaaatg
                                                                       1620
gcaaccagct gcctcctgaa aagcaagtct tttcatctac tgtatctgga ttttttgctg
                                                                       1680
cagctagttt catgtcatat caacaatgtg agttcaattt tggagcaaaa ccattcaaat
                                                                       1740
acccaccatc tatgaaattt agcactttta atgactacgc cttcctaaca gctgaagaaa
                                                                       1800
aaatcatttt gccaaggcac aggcgtcttg ctctgttgaa gcaagtcagt atccgagaaa
                                                                       1860
actgctgttc cctttgttgt gatgaggtag cagacacaca attgaagcca tgtggacaca
                                                                       1920
```

gtgacctgtg catggattgt gccttgcagc tggagacctg cccattgtgt cgtaaagaaa

tagtatctag acttttttct ggcccgwacc	actcaattcc	agccaatgtt	gaaaaaaaa	catgtgaaga aaaaaaaaaa	ggcatcgtgg actcgagggg	2040 2100 2133
<210> 25 <211> 1248 <212> DNA <213> Homo	sapiens					
<400> 25						
ggcagtgcac agtggcgctg ccgatggttg gttttatggt tgccatctct cacagtaaaa agacattgac tatttgtgga cgaaaacaag tttaagacca catagagtac ggattgggaa cagcaccagc gctccagaag gctccaccgt	getacegtet cagtecacea cataaagaga geacgettea catgageaga cagaagaace tttgatatea aaactgatea gatetteet gactggaact cagactaaag aagcagageg	atttccaaga atgactcccg aagataaagg aaccgttcag agatggactg tgaatggaaa agaaagttca ggtgtaaggt atgatgtgaa taacatcact acaacaaagc actggaacgg aggatggcct	ggaatttcta atttgggcat tctgcaaacc caataaaggg tggaggggc atcgcaatac tgttattta tgatggcttc aattgatggt caagaaggaa ccaggactgg tgacctggat gaaaccagaa	gacggagage tttagacttt actcagaatg aaaactctgg tacattaagg tatattatgt catttcaaga acacacctgt cagtcaattg acgtccccgg gagaagcatt ggggactggc ggtattcata	attggagaaa cgtcgggcaa gccgattcta ttattcagta tctttcctgc ttggacccga ataagtatca acactctaat aatccggcag cagaatcgaa ttctggacgc cagcgccgat aagacgtctg	60 120 180 240 300 360 420 480 540 600 660 720 780 840 900
gaacattggt q	gccattggcc	tggagctttg	gcaggtgaga	tctggaacca	tttttgataa	960
ctttctgatc a	acagargarg	aagagtatgc	agataatttt	ggcaaggcca	cctggggcga	1020 1080
ccgcgaggaa g	gaggaggaag	agctgctgtc	gggaaaaatt	aacaggcacg	aacattactt	1140
caatcaattt (cacagaagga	atgaacttta	gtgatcccca	ttggatataa	ggatgactgg	1200
taaaatctca t	tgctacttt	aaaaaaaaa	aaaaaaaaa	aactcgag		1248
<210> 26 <211> 1348 <212> DNA <213> Homo s	sapiens					
<400> 26						
gagetecaeg o	ggtgcggcc	gctctagaac	tagtggatcc	cccgggctgc	aggaattcgg	60
cacgagcacg o	gcctcactg	gccaccctcc	caaccccaaq	agggagggar	cgaaggtagg	120 180
gccgccggcg c	gctgctgtg	ggtcctgctg	ctgaatctgg	gtccccgggc	ggcgggggcc	240
caaggcctga c	ccagactcc	gaccgaaatg	cagcgggtca	gtttacgctt	tgggggcccc	300
atgacccgca c	gctaccggag	cmccgcccgg	actggtcttc	cccggaagac	aaggataatc	360
ctagaggack a gagctcttgg c	cgccacqqt	gtccaccggc	tttagccggt	catccaccat	taacgaggag	420 480
gatgggtctt c	agaagaggg (ggttgtgatt	aatgccggaa	aggatagcac	cagcagagag	540
cttcccagtg c	gactcccaa	tacagcgggg	agttccagca	cgaggtttat	agccaatagt	600
caggagcctg a	aatcaggct	gacttcaagc	ctgccgcgct	ccccgggag	gtctactgag	660
gacctgccag g cggtggccgt c	acceteace	caccctgagc	cagtggtcca	cacctgggtc	taccccgagc	720 780
atgccctggg g	cccgtggca	ctgccactqc	aaqtcqqqca	ccatdadddd	gaagaaatat	780 840
gggaagctgc a	.cggcctttc (cgggcgcctt	cgagttgggg	cgctgagcca	gctccqcacq	900
gagcacaagc c	ttgcaccta	tcaacaatgt	ccctgcaacc	gacttcggga	agagtgcccc	960
ctggacacaa g	rcccettaa	rgacaccaac	tgtgcctctc	agagcaccac	cagtaccagg	1020
accaccacta c	agccctage (ttttqqaaa	cagaticada	ttaacctaa	gccacccgcc	1080 1140
aatagcctct c	ttcagtgtt (cacagagatg	caaccaatag	acagaaacca	gaggtaatgg	1200
ccacttcatc c	acatgagga 🤉	gatgtcagta	tctcaacctc	tettgeeett	tcaatcctag	1260

	atattttag aaaaaaaaa		caaaactgga	aaacacaaaa	aaaaaaaaa	1320 1348
<210> 27 <211> 1032 <212> DNA <213> Homo	sapiens	·				
gcctgacggc tctccttcta caggggcgct ccgccaagat atcagctgta tcttccggga agcaccgctg ggccctggag acgagaccat gcgagtcctc ggcacaaaca cacacttggc agctgggcct	cggcacgagg ggcgctggcc ccgccaccat gctcaccgac caccgggag ccaggggaag gcaggtgcac tggtaagcaa gctgaggga ctcctgcaac ggcgcagtgg ggacacgagc caacctgacc gcccagggc ctgggctgct	cacggctgtc gtgaacttca tggagcgacg aagctggacc atgtacttcc ctcatccaga ggctccgtcc gccctggcgg aactgcacag aagtcagctg atgagcctgg ttggaagatg aacgtggggg	tgcactgcca agtcctggtg acacgatgaa aagtggcgac ccgggtattt acgccatcat aggctgaggg ctcttgtacg actcgcacgt tccagggcct tatcgccagc ctgctgagtg cggagactca	cagcaacttc ggtgggcgac ggagctgcac agcagtgtac ccccaacgag cgaaagccgc gcgtgccggt tgttcaggc cgcctgcttt cctgaactac cttaaggtgt tctcaagcag gctggacagc	tccaagaagt atccccgtgt ctggccatcc cagatgatgg ctgcgaaaca atcgactgtc ggcagctcgg atcttccagt ggctataact ataaataact ctggagcccc cactgacagc ccctgcctgt	60 120 180 240 300 360 420 480 540 600 720 780 840 900
gctggccagg	gccaggaggg ggtccgcaga	cgggagggag	ggaatggggg	tgggctgtgc	gcagcatcag	960 1020 1032
<211> 1363 <212> DNA <213> Homo <400> 28	sapiens					
caccagacca accgagagcc tacgagggtc gcctactggg gtatgcctgg gccggtggga tggtcctggc ttcgggaacc ggcgtcaacg	getetgtgte aggaceegee cetggetetg tgceaegtge gagacaggag ggceatgcea cagaggeeae agagetgeea atgeaeagtg tagetgtete eagetgeete etgtgaeaeg	gctatttccc ggcctcccat caggcgcagg tggggagtgg gagcaaggca agcaaggca gtccctacta ttggccacga atgtcctgtc tgccctggtg	tgtgttcact ctgcccttcc ggaaacagcg cctcacaccc gaggcttggt aaggtgtggg cgtctgtttg gatgccgtaa aggaggtagg gagaggacgg	gccttcctct tèccgcccat cagggtcgga cacaggaggg ccagcctgtg gagggcgggg ttgattgggt ccagaataaa gcagagataa aggacatcac	tcgcaaggac cgtcagcgtt ggcagaaccc gatggaggag gcagtgagca ggtgtctctc catgtttaac acaggactct ggggctggtg gtccctccag	60 120 180 240 300 360 420 480 540 600 660 720
tctatttca ggctaattt cccgtgtggc tcagcctcag tgttttctag tttgccttt tgcaatggtg gcctcagcct atatttttag tcaaatgatc	aggacagatg tggcctttga ccagcgaaat acagtgaagt acgtgtccat tttttttct tgatctcggc cctgagtatc tagagacagg cgcccacctc	aggtcacaga ttccaaagcc cctgaactct gagaagttca attctagagt ttttttgagg tcactgcaac tgggattaca gtttcaccat agcttcccaa	cgcagtgtgt tctttaagac aaggagaagg acatgctggg ttcttatctt cagggtctcg ctccacctcc ggctcccacc gttggccagg	gctgcatttg rtatgttctc caaatctctc ctttgtagct gggaagttac ctctgtagcc caggcccatg atgacgcca ctggtctcga gccactgcac	aaatgttta tctgtcatca tccttgcttt gttttctcct atgctctgtt caggctggag caattctcaa gctaattctt actcctgacc	780 840 900 960 1020 1080 1140 1200 1260 1320

```
<210> 29
<211> 2275
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1449)
<223> n equals a,t,g, or c
<400> 29
ggcacgagcg acaggtcaga gctgcggcct gagcagccag cgtccggcat gaaggtctgg
                                                                         60
ggtctggctg ctgcctgctt cttgctccag caccatggaa tgcctgcgca gtttaccctg
                                                                        120
cctcctgccc cgcgcgatga gacttccccg gcggacgctg tgtgccctgg ccttggacgt
                                                                        180
gacctctgtg ggtcctcccg ttgctgcctg cggccgccga gccaacctga ttggaaggag
                                                                        240
ccgagcggcg castttgcgg gcccgaccgg ctccgcgtgg caggtgaagt gcaccggttt
                                                                        300
agaacctctg acgtctctca agccacttta gccagtgtag ccccagtatt tactgtgaca
                                                                        360
aaatttgaca aacagggaaa cgttacttct tttgaaagga agaaaactga attataccaa
                                                                        420
gagttaggtc ttcaagccag agatttgaga tttcagcatg taatgagtat cacagtcaga
                                                                        480
                                                                        540
aacaataqqa ttatcatqaq aatggagtat ttgaaagctg tgataactcc agagtgtctt
                                                                        600
ctgatattag attatcgtaa tttaaactta gagcaatggc tgttccggga actcccttca
                                                                        660
cagttgtctg gagagggtca actcgttaca taccctttac cttttgagtt tagagctata
                                                                        720
qaaqcactcc tqcaatattq gatcaacacc cttcagggga aacttagcat tttgcagcca
                                                                        780
ctgatccttq agaccttqqa tqctttggtg gaccccaaac attcttctgt agacagaagc
aaactgcaca ttttactaca gaatggcaaa agtctatcag agttagaaac agatattaaa
                                                                        840
attttcaaaq aqtcaatttt ggagatcttg gatgaggaag agttgctaga agagctctgt
                                                                        900
gtatcaaaat ggagtgaccc acaagtcttt gaaaagagca gtgctgggat tgaccatgca
                                                                        960
                                                                       1020
gaagaaatgg agttgctgtt ggaaaactac taccgattgg ctgacgatct ctccaatgca
                                                                       1080
gctcgtgagc ttagggtgct gattgatgat tcacaaagta ttattttcat taatctggac
                                                                       1140
agccaccgaa acgtgatgat gaggttgaat ctacagctga ccatgggaac cttctctctt
                                                                       1200
togototttg gactaatggg agttgotttt ggaatgaatt tggaatottc cottgaagag
gaccatagaa ttttttggct gattacagga attatgttca tgggaagtgg cctcatctgg
                                                                       1260
aggegeetge ttteatteet tggacgacag etagaagete cattgeetee tatgatgget
                                                                       1320
                                                                       1380
totttaccta aaaagactot totggcagat agaagcatgg aattgaaaaa tagcotcaga
                                                                       1440
ctggatggac ttggatcagg aaggagcatc ctaacaaacc gttaggaaca gccccgtgga
tactgaagnt ttttttatgg tagttacagg aaacttctga tactctttt attatttct
                                                                       1500
tgtatagagt cagacacttg aaaaaaacta atgtttgaag acaaaaatat tttggcagtc
                                                                       1560
                                                                       1620
acaataccag aactggattg catttccaga attctgagtt aaagaaacaa agtatttgct
                                                                       1680
ttgtaaaagg ccaaaattct atttcctaca aactttaaat gctgttttta tagatgtgat
                                                                       1740
atgaggcaac acaagcacag acagttgcat agattttaat ttatacatat caagaaaagt
gcaatttcat gctgaatgaa gcgtaggaac ttgacaagcc cataggtagc tatagttctt
                                                                       1800
                                                                       1860
tgtcagtata gggaattatg ttcatgtgaa tttcctgatt ctcaggtgac taaaaagcta
                                                                       1920
gcattctatg tattaacctt acaacagact ctgtaagttt gagctttaaa aaccaaactt
                                                                       1980
tqacataacc ttatttcttq tatttgcccc ctttttttta taaaaggtga ataaaaagaa
                                                                       2040
ataatttaat atcaccattq tatggattcc taatcaagat ttcacgttct cagcccctga
gactagtttt ctttgctctc tgtaattaga gcctttggaa gcaaagttga aaggaagtat
                                                                       2100
                                                                       2160
ttccattctg ttactgtttt gtagcacttt gtccatttat tgatttttaa agtagatatt
                                                                       2220
taggatacca ccctgccct gccctgcccc aaaaagaaaa atgtttattg tcctgctwaa
                                                                       2275
totatatqcc tacacctcag gaaggctgga cmggatgagg cttccymaaa acatg
<210> 30
<211> 1971
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (416)
<223> n equals a,t,g, or c
```

```
<220>
<221> SITE
<222> (458)
<223> n equals a,t,g, or c
<400> 30
gcccaggctg acaaaaagga gaaacagctt ttacttgcat ccagggccaa tcatcgcaga
                                                                       60
cccagacgtc tgcagagggg aaaataaaag aagcaaaaac aggccctgct gtgagggacc
                                                                       120
acgaggcagt gccaggatga aagagttgga gtaacctagg tgattctgag tgaatcagtc
                                                                       180
                                                                       240
aggaggcctt cctggagggg accattgcag gtactgtgcc ttctgcctga aatgtgctca
                                                                       300
cctcgcctcg ctgactccta ctcgccagtt agtgttcggc ccatttctgc ccccgtgaga
                                                                       360
tttcttcaca gatgttgccc tcccccattt gctgagtttc ctgcatgccg gctccttcag
cactcaaggg tacctctttg attctgcttc tcacagggct gaggccccag cttggnggcc
                                                                       420
accacaacgt atcaagctat cttcagggtt gggctcanga ctcagagctg acgcagctgg
                                                                       480
                                                                       540
ggtgccctt ggttctggag gatgaggctc ctccgcagac gccacatgcc cctgcgcctg
gccatggtgg gctgcgcctt tgtgctcttc ctcttcctcc tgcataggga tgtgagcagc
                                                                       600
agagaggagg ccacagagaa gccgtggctg aagtccctgg tgagccggaa ggatcacgtc
                                                                       660
ctggacctca tgctggaggc catgaacaac cttagagatt caatgcccaa gctccaaatc
                                                                       720
agggctccag aagcccagca gactctgttc tccataaacc agtcctgcct ccctgggttc
                                                                       780
                                                                       840
tataccccag ctgaactgaa gcccttctgg gaacggccac cacaggaccc caatgcccct
                                                                       900
ggggcagatg gaaaagcatt tcagaagagc aagtggaccc ccctggagac ccaggaaaag
                                                                       960
gaagaaggct ataagaagca ctgtttcaat gcctttgcca gcgaccggat ctccctgcag
                                                                      1020
akgtccctgg ggccagacac ccgaccacct gagtaagtag cacccagagt ccttgtgggg
agaccagggc tttgctaaag gcatggctag tatggccagg gccatagatc aagggccaga
                                                                      1080
gaaagagttg aagggaattt tataatatgg gcaaggatct cctctatgcc tcacttcttt
                                                                      1140
cccagaacaa ctgtgctgat cccaggggtt gtgattcaag ggtattatgg tcaggccaga
                                                                      1200
ggcccaggga gacctgtgag agtgaaatgc aattatgaaa gtgagatgat gtggaagaag
                                                                      1260
                                                                      1320
gaaytcagcy tggcaccagg acytggcacg ggktgactgg ggagacctga taccaagctg
                                                                      1380
tggtttcagt agctttctcc tctactgagg cctgytccag agactgtggg actctaatgc
                                                                      1440
tqaqctqttt ggggggggg tgggcatttc ttaacagcaa ccctggtggt taggaatatc
ctcacacctg gtttcctcca gtgaaggccc acaaggccgg aattgattcc aacctttatc
                                                                      1500
tgaagttgtt tatagcctca atcttgcaca atgagatctc acttagatct ttgagtggca
                                                                      1560
                                                                      1620
geccetece tetaacgece ceatggetge atteceatga tecteaagtt aaagacagtg
                                                                      1680
tgtcttcccc acttagcctt tgtcttttcc aggtcaagtg ttatacccta tttggccttt
                                                                      1740
tctcaaatgg cagccctcat ccccagattt cgtgagtctt tagggctgtg aacctgaggt
                                                                      1800
tettgagaet tgagecaagt atgatageee tagaacaagg ggecaettga agetateagg
                                                                      1860
aattootoag cagagaaggg cactggggcc aggcacagtg gctcatgcct ataatcccag
                                                                      1920
cactatggaa ggctgaggtg ggtggatctc ttgaggccag gagttcaaga ccagcctggc
                                                                      1971
<210> 31
<211> 1898
<212> DNA
<213> Homo sapiens
<400> 31
                                                                        60
tcgacccacg cgtccggcgg ggtgtacgaa agagaaaccc ggagggcgcc ggggactggg
ccggggtctg cagggctcag ctgagcccat gagctcccag agctaacccc tgaacaccca
                                                                       120
ggcgggcaaa gggctgatgt cggtagtccc catcctggag gggcaggctc tgcgcatctg
                                                                       180
                                                                       240
ctcctggcat ggcgctgcgg cacctcgccc tcctggctgg ccttctcgtg ggagtcgcca
gcaagtccat ggagaacacg gcccagctgc ccgagtgctg tgtggatgtg gtgggcgtca
                                                                       300
acgccagctg cccaggcgca agtctgtgtg gtccaggctg ttacaggcgc tggaacgcgg
                                                                       360
acgggagcgc cactgcgtcc gctgtgggaa cggaaccctc ccagcctaca acggctccga
                                                                       420
gtgtagaagc tttgctggcc cgggtgcgcc attccccatg aacagaagct cagggacccc
                                                                       480
                                                                       540
cgggcggcca catcctgggg ctccgcgcgt ggccgcctcc ctcttcctgg gcacgttctt
                                                                       600
cattagetee ggeeteatee teteegtage tgggttette taceteaage getecagtaa
actececagg geetgetaca gaagaaacaa ageteeggee etgeageetg gegaageege
                                                                       660
                                                                       720
tqcaatqatc cccccgccac agtcctcagt acggaagccg cgctacgtca ggcgggagcg
                                                                       780
gcccctggac agggccacgg atcccgctgc cttcccgggg gaggcccgta tcagcaatgt
                                                                       840
```

ctqacctqqa ggccqaqacc acgccacqca cttggcggca gggacccgga ggccgacccc

ttaacaaaa	ссадсасааа	atattaacat	cgcccggcgc	ccqqqacagt	cctgggcaca	900
acatagasta	taratacata	cacctcccaa	cgacggacgc	caaagggtcc	caaaccayct	960
gccccggccc	cgracecee	gatatatat	tatcggacca	adadcadaca	tccatgagac	1020
gaggeteete	cecaceacag	ccatcccgcc	taccygacca	ggagcaggca	scaatasaac	1080
ctcagagctt	cagatcgagg	cccrgggggg	tccgggccc	cccaggaaac	taataass	1140
cccagcgcct	gcagccaaag	ctggcacgat	ctatggggca	ggrgeegere	tgcctagaaa	
agccaggggc	tctgctgccg	tgccctccag	agcccacagc	gggcaggact	cctccagcac	1200
caccacaccc	agtggcccga	gacccctctg	agaacagtga	ggctggtcct	cgtgccgttc	1260
cagoogatao	ccaaccaata	gggaggacac	agcctaggaa	ccagctgcct	gagaccaggg	1320
tacctctaga	ctatactaca	acataacaa	gaccccaagc	acqcaqccac	ccatttccgg	1380
egeceeeggg	tagacettee	tetteatete	tgtttttaag	cagaaattca	ttgtgcagaa	1440
agetgeagga	cagageteee	cccgacece	astagastaa	accccatcc	ctaactaata	1500
aagtcctcca	gagetetgtg	gedeegeteg	gatccgctgg	taratagata	actoraceto	1560
cctgcccacg	tggggcaggc	ccacatctaa	ccccacaag	cadegeece	accycacccy	1620
ccaaggctgc	cctggcgctg	agtcctgggg	tccctcccgg	agttcctggg	agaaaggege	
cgtcgtggcc	gcctcccgca	cgccaggccc	gggctccacc	gtgggtctca	gacgccctgc	1680
ggcaccggca	ccgtctgctt	tagcatggga	cccccmtctg	aggggtggcc	tggccttcgg	1740
gataccaca	ctcctttqcq	aagtccactg	tgggtgccat	catggtctcc	gggacctggg	1800
ccadcadaaa	catagagaca	ctagatatkc	tgatataaag	tcggcattac	tcaagctgca	1860
2222222	aaaaaaaaa	aaaaaggggg	accactet	33		1898
aaaaaaaaaa	aaaaaaaaaaa	aaaaagggog	3003000			
<210> 32						
<211> 808						
<212> DNA						
<213> Homo	sapiens					
1227	~					
-400- 33						
<400> 32		++20220202	taaaaaaaa	atottatooa	ctaccatgga	60
tgcaggaart	eggeaegaga	ttacaacaca	tcagaacaaa	acgeeacgga	ttttctcacc	120
gcagaaatcg	tgagccttcg	tttgetgtea	ctagtaaaag	aayaaccccc		180
cccaacctag	attcacatgg	actgaaatgt	gcatcttctc	ctcatgggct	ggreatgget	
ggagttgctg	ggactgtcca	tcgaggaaac	acttgtttgg	gcatttttga	acaaatttt	240
ggactcatcc	gctgcccttt	tgtggagaat	acttggaaaa	tcaaatttat	caacctgaaa	300
attatgggag	agagttccct	tgctcctgga	acattaccga	aaccatctgt	taaatttgaa	360
caaagtgatc	tagaggcctt	ttataatqta	atcactgtat	gtggtaccaa	tgaagtacga	420
cataatotaa	agcaggette	ggatagtgga	actggggacc	aagtttgagg	tagtggaaat	480
gagagattac	traacaaaar	agaactgggt	ttacctgacc	ctctaaagcg	ctaaqtactq	540
tanaatan	anantatta	tatacacasa	ctcttccaaa	tactatatca	gtaatgtctg	600
ceageeegaa	addadcccc	tacacagaaa	ttagttgaaa	tacctttctc	gactacagac	660
aatgatttca	gatgtgaaaa	Ligadatati	ttagttgaaa	cacccccccg	ttatassac	720
ttacatatca	tgtgaatact	tacctatttc	tacccgagtt	geageaagea	cccigaaagc	780
			aaaaaaaaa	aaaaaaaaa	aaaaaaaaa	
aaaaaaaaa	aaaaaaaaa	aaaaaaac				808
•						
<210> 33						
<211> 1264						
<212> DNA						
	_					
<213> HOIIIO	anniona					
	sapiens					
	sapiens					
<400> 33					eses at at ag	60
<400> 33 qqcacqaqcg	cacetggeet	cagaggcccc	ggccaccgag	gagcctcctg	gggactctag	60
<400> 33 ggcacgagcg gctgggctct	cacctggcct tctgcatgga	acgccccgcc	tctctttggg	cctcagtttc	catcttgttc	120
<400> 33 ggcacgagcg gctgggctct accagttggg	cacetggeet tetgeatgga ggetggetet	acgccccgcc tcccagcctt	tctctttggg caggtggcct	cctcagtttc ctctctctga	catcttgttc ctccagcccc	120 180
<400> 33 ggcacgagcg gctgggctct accagttggg	cacetggeet tetgeatgga ggetggetet	acgccccgcc tcccagcctt	tctctttggg caggtggcct	cctcagtttc ctctctctga	catcttgttc ctccagcccc	120 180 240
<400> 33 ggcacgagcg gctgggctct accagttggg caccctcctt	cacetggeet tetgeatgga ggetggetet tgttgggaee	acgccccgcc tcccagcctt ctccagaccc	tctctttggg caggtggcct atccgctagt	cctcagtttc ctctctctga cacaggagcg	catcttgttc ctccagcccc tgtccctgaa	120 180
<400> 33 ggcacgagcg gctgggctct accagttggg caccctcctt aggaactggc	cacetggeet tetgeatgga ggetggetet tgttgggaee tgeetteaet	acgeceegee teccageett etccagaece gtgagageeg	tetetttggg caggtggeet atcegetagt ggetgeacag	cctcagtttc ctctctctga cacaggagcg atcccctgat	catcttgttc ctccagcccc tgtccctgaa ggggtgcccc	120 180 240
<400> 33 ggcacgagcg gctgggctct accagttggg caccctcctt aggaactggc	cacetggeet tetgeatgga ggetggetet tgttgggaee tgeetteaet ggetettgga	acgeceegee teceageett etecagaece gtgagageeg ggetetggee	tetetttggg caggtggeet atcegetagt ggetgeacag agtgaggtea	cctcagtttc ctctctctga cacaggagcg atcccctgat agcctgtgta	catcitigatic ctccagcccc tgtccctgaa ggggtgcccc tcctaccagg	120 180 240 300
<400> 33 ggcacgagcg gctgggctct accagttggg caccctcctt aggaactggc ttcctgaggt	cacetggeet tetgeatgga ggetggetet tgttgggaee tgeetteaet ggetettgga ggtggaegag	acgeceegee teccageett etccagaece gtgagageeg ggetetggee gecaacaeag	tetetttggg caggtggeet ateegetagt ggetgeacag agtgaggtea tecetggggg	cctcagtttc ctctctctga cacaggagcg atcccctgat agcctgtgta aatcctggga	catcitigatic ctccagcccc tgtccctgaa ggggtgcccc tcctaccagg tctctgacac	120 180 240 300 360
<400> 33 ggcacgagcg gctgggctct accagttggg caccctcctt aggaactggc ttcctgaggt gcctggagg	cacetggeet tetgeatgga ggetggetet tgttgggaee tgeetteaet ggetettgga ggtggaegag teeetgagea	acgeceegee teccageett etccagaece gtgagageeg ggetetggee gecaacaeag gaggggeetg	tetetttggg caggtggeet atcegetagt ggetgeacag agtgaggtea tecetggggg aggggeacce	cctcagtttc ctctctctga cacaggagcg atcccctgat agcctgtgta aatcctggga aaggggtggg	catcitigatic ctccagcccc tgtccctgaa ggggtgcccc tcctaccagg tctctgacac tgggaagccc	120 180 240 300 360 420 480
<400> 33 ggcacgagcg gctgggctct accagttggg caccctcctt aggaactggc ttcctgaggt gccctggagg ctggcggggg	cacctggcct tctgcatgga ggctggctct tgttgggacc tgccttcact ggctcttgga ggtggacgag tccctgagca	acgeceegee teccageett etccagaece gtgagageeg ggetetggee gecaacaeag gaggggeetg ggeeetggtg	tetetttggg caggtggeet atcegetagt ggetgeacag agtgaggtea tecetggggg aggggeacce tggaageacc	cctcagtttc ctctctctga cacaggagcg atcccctgat agcctgtgta aatcctggga aaggggtggg tgcagctcca	catcitytic ctccagccc tgtccctgaa ggggtgcccc tcctaccagg tctctgacac tgggaagccc gctgggccaa	120 180 240 300 360 420 480 540
<400> 33 ggcacgagcg gctgggctct accagttggg caccctcctt aggaactggc ttcctgaggt gccctggagg ctggcggggg	cacctggcct tctgcatgga ggctggctct tgttgggacc tgccttcact ggctcttgga ggtggacgag tccctgagca cccatggtca	acgeceegee teccageett etecagaece gtgagageeg ggetetggee gecaacaeag gagggeetg ggeeetggtg tgggtgeagg	tetetttggg caggtggcet atcegetagt ggctgcacag agtgaggtca tecetggggg aggggcacce tggaagcacc	cctcagtttc ctctctctga cacaggagcg atcccctgat agcctgtgta aatcctggga aaggggtggg tgcagctcca ggaccgatgg	catcttgttc ctccagccc tgtccctgaa ggggtgcccc tcctaccagg tctctgacac tgggaagccc gctgggccaa tgagtggggt	120 180 240 300 360 420 480 540 600
<400> 33 ggcacgagcg gctgggctct accagttggg caccctcctt aggaactggc ttcctgaggt gccctggagg ctggcggggg ctaagccaca ggtactgggg	cacetggeet tetgeatgga ggetggetet tgttgggaee tgeetteaet ggetettgga ggtggaegag tecetgagea eccatggtea ecteteettg	acgeceegee teccageett etceagacee gtgagageeg ggetetggee gecaacaeag gaggggeetg ggeeetggtg tgggtgeagg gtggeetgtg	tetetttggg caggtggcet atcegetagt ggetgcacag agtgaggtca tecetggggg agggcacce tggaagcacc ggceggggca catggctgca	cctcagtttc ctctctctga cacaggagcg atcccctgat agcctgtgta aatcctggga aaggggtggg tgcagctcca ggaccgatgg gagcccctgg	catcttgttc ctccagccc tgtccctgaa ggggtgcccc tcctaccagg tctctgacac tgggaagccc gctgggccaa tgagtggggt tgaggggaca	120 180 240 300 360 420 480 540 600 660
<400> 33 ggcacgagcg gctgggctct accagttggg caccctcctt aggaactggc ttcctgaggt gccctggagg ctggcggggg ctaagccaca ggtactgggg	cacetggeet tetgeatgga ggetggetet tgttgggaee tgeetteaet ggetettgga ggtggaegag teeetgagea eccatggtea ecteteettg atgeagetga	acgeceegee teccageett etceagacee gtgagageeg ggetetggee gecaacaeag gaggggeetg ggeeetggtg tgggtgeagg gtggeetgtg agggtteete	tetetttggg caggtggcet atcegetagt ggctgcacag agtgaggtca tecetggggg aggggcacce tggaagcacc ggccggggca catggctgca ctggtcaggg	cctcagtttc ctctctctga cacaggagcg atcccctgat agcctgtgta aatcctggga aaggggtggg tgcagctcca ggaccgatgg gagcccctgg	catcttgttc ctccagccc tgtccctgaa ggggtgcccc tcctaccagg tctctgacac tgggaagccc gctgggccaa tgagtggggt tgaggggaca cccaccctgc	120 180 240 300 360 420 480 540 600 660 720
<400> 33 ggcacgagcg gctgggctct accagttggg caccctcctt aggaactggc ttcctgaggt gccctggagg ctggcggggg ctaagccaca ggtactgggg	cacetggeet tetgeatgga ggetggetet tgttgggaee tgeetteaet ggetettgga ggtggaegag teeetgagea eccatggtea ecteteettg atgeagetga	acgeceegee teccageett etceagacee gtgagageeg ggetetggee gecaacaeag gaggggeetg ggeeetggtg tgggtgeagg gtggeetgtg agggtteete	tetetttggg caggtggcet atcegetagt ggctgcacag agtgaggtca tecetggggg aggggcacce tggaagcacc ggccggggca catggctgca ctggtcaggg	cctcagtttc ctctctctga cacaggagcg atcccctgat agcctgtgta aatcctggga aaggggtggg tgcagctcca ggaccgatgg gagcccctgg	catcttgttc ctccagccc tgtccctgaa ggggtgcccc tcctaccagg tctctgacac tgggaagccc gctgggccaa tgagtggggt tgaggggaca	120 180 240 300 360 420 480 540 600 660

tgtggcacac agag tggacggacg gggg acaggccggg cctg agctggttgg tgtt ctcccccgag cagg	gggegec accegggtee ggtggeg ggaggggtgg gacagac agactggtgg gtgectg gcaggtgtea tcagggg cacegatggg gacgget gggtecaaac gcagagg ggtgtgggtg ettecca ccagcaggge	ggcagttgca tcagactcgg gctgtgccag ccgagtccgg cactagaaat ctgggctggg	gtgactgcca ggttggtggg ggccacccca gttcggaggt agtctgaaat attcgcagcc	agtgtatggg gggacaggtg gccacgggag cagcctggag tgttcttccg ccccgaggct	840 900 960 1020 1080 1140 1200 1260
<210> 34 <211> 956 <212> DNA <213> Homo sap	iens				
gccaaacat aat agagcttggc ccg tcaaaccag gtc caccttcctg ggc acaagcctgg atg gtgggctcgg ttt acttctcta cgg ccacgccgcc atc tccctcggcc aac tccctccagt ttt ccctgccaca cct ttctttctt ttt tacagtggtg cga	teggeac gageagagac tectgge ageteceea cetecaa cageceatgt acttece cagecected tgaaaca ceacattagg tecetga egeacecad tteetgt ceaggettaa ggateet cageggeace actgage teagageetgag cactgage teatgggtte caccagg tettgggtte cactaget cacaagaaag tettttt ttttttgaga tetttgge teactgeete ggaetae aggeaeggg	ctcccctcc tctaattctg agcttctagt cacccagatg tccggttctc atgcccaggt ctgggcttca tgtccagctg cctcctccct acctcactc acatcactgt cagggttcg ccaggttcg ccaggttca	ccctcactct cagtttccag ccccgggtcg cctctgcatc tttctcttc ggctgtctct gtccccatgg cttcccagac gccagggtgc cctccttctt gtccgttctc gtccgttctc aaaattctca agttacattt	tetgecacee aageceacee tgeceateet tgaaaatete teageeteet getggeeett atggageage aacttgeaag gecactacet eteteceegt etttttett caggetggag tgeetcagee ttttgtgtat	60 120 180 240 300 360 420 480 540 600 660 720 780 840 900 956
<210> 35 <211> 1505 <212> DNA <213> Homo sag	piens				
ctgtggcct gat ctccaggtgt ggc ttccgaggat gta gccaccatgg cac aagtagtcac ctt aattggatgt tag atttttcc agt ccagtggcta taa tccccactcc tga gcctttgaaa gca aggaggttt taa caacaatatg caa cctgcggtga ata ctccaaatga tag gtttctgatg tga cactcaaata gta	egccectg gaggatgtte egggteec tgeagagee eggggege ectgeteet acageget ggagetegg eggacegt ttattgtac teacaaag catgeactg getgetgt tgattttge tgacatea aaatgacee aggecatt gagetteag agaaagag caaatatet aagtttat tatttttt aaacagta cataaaaat acttatgg gteacetee ggagetga etaggeact getgaaat caagetgea agcatttt titttaa cagetata ttgeagtga gracattg tacecaata gracattg gteceactee ggagetga etgeagetga agcatta agtgtetga gracattg tacecaata	t cacgetgette g geagactaca g geeggeaegg a ggtaatgagg a ctgtataaaa c atcetggtee a geaataegea g aggtgeetag c caaaaacagg c ctgggtatag c ctgggtatag c ctgtgeeaet g ceeteaggge g cageaetgta a tatgtatata t gaeateegt g ggaagettta g ttteeaetea g ttteeaetea	gtcgctcctt tcctgttccg tggctcactag ggctcactag tgacatctca aaagaggcag cctggccctg ctcagcagca gcgccctgct aggaatatac catttctaga gcttacgttg tttagggggt ttgggctttta atcccccac gtatgtccat	gtcctcttcc acaggacctc catcatcgca ggctgcaggg aggcaatgga tccactctcc gcagcgtcac ggtacctctc ccttttagaa cattctttgt tagattgaat tgtaggaggc taagaatctc acatgtgaaa acaagtgcgg gtggaccttc cctyccaccg	60 120 180 240 300 360 420 480 540 600 660 720 780 840 900 960 1020 1080 1140 1200

aggcaggcag ctgtctgtac cagctacttg	aggccaggtg atcacctgag taaaaataca ggaggcttga gtctgggcca	gtcaggagtt agaattaacc acctgggagg	tgagaacagc agatgtggta cagaggttgc	caggccaaca gcggcgggca agtgagctga	tggtgaaacc cctgtaattc gattgcacca	1260 1320 1380 1440 1500 1505
<210> 36 <211> 1239 <212> DNA <213> Homo	sapiens					
tcagggacge catttcacac agatagtaag aatagagtaa gtgtetteeg agggaagtgg etgegetggg agggetegt acceegtgg geacetggat cagagateet acggtgatga gggeeetcaa teaaggtgtt eggacaagga ecetggttgt tegtteeegt	cggcagcaaa gaacatttat atgaggaata tggccgagac ctcggactcc tggacaggcc agagtaaggc cactgagtgt ctacaggagc tagacgttac ctaccaacgg ctcagactcc gtaccggccg tccctggat caagctgcc tgaccagaac ggtcctgacc ctgggtcgtg tgacagccag tgacagccag tgacagccag	tgagctctta agaggcccag gaatttgaaa agttggaggg accggagccg ccargccccg gcttygtgtg tcacattagc ctgggcttgy caacggagag gaggaggacc ctgttcttct tacatgaagt gtggagttcc tggaaacggc ctgcagtcgg gtggtgatcg cccccaggc accagcaa	ttgtataccg agaggtgaag ccaggggtgt gttcgggaga ccagctgttt tgggggcaga ctgctaatgg cccagtttc atgtgttcta gatctctgtt gggtatcttc accaggagac ggagaaggaa tgctgctcct ccctcaactg ggacctatgg caggcacagc ttcactgggt accattccct	cgtcggccag tgacttcctt cctgtttgaa accatagaag ggaactgagc tggccggcag cggagacagt cagcttcagg tgtggtcact ctgcccatg taataccaac cacggctcag atcagcatac cacagtcccc tctgcatctg tgtctatgag cttggcttca	catttgtktc aaggccacac cttggtgcca akgaagggcc tactgcagaa aaggctgaat gtctgggact tgtgaaccag gtgattctct ccagttactc agctatgact atcttggtcc tggaaagccc gtcgtggacc gttatcagcc gtatcagcc gtatcagcc gtatcagcc gtatcagcc gtatcagcc gtgacctttt ggctgtgttc	60 120 180 240 300 360 420 480 540 600 660 720 780 840 900 960 1020 1080 1140 1200 1239
<210> 37 <211> 900 <212> DNA <213> Homo	sapiens					
ttgtcagtgg ttaggaatag ttaccaatat atagaagcag gacattagca tatcaggctt gtacaaaaac ttacaaaaat ccagaccata agtgtttcaa catttagttt tttgaatcca	agtcatcca atcccagca cactgatgag ctgatttgt gtctctccaa gggggacagc agccacagac aacagtgga gggggaattg attaggtaag atggttttaa atttgtaaaa gaggccgagg	tcttcttcca catgtctctc taccctacaa tccagtacgg actaggggtc cagctagtct aatatttaaa ctggatttag gtaaaaatca atatgtggtc tttttttta aataaattt caagcagatc	tactagactg actgtctttc tcaattttca tttctcaacc agcaaactct cttttgcatc caacatggct cctatagttc gtgaaaaatt catatgttct cctaaaactc gactggacac gcttgagccc	aaaaaaaaa attttcttct gaaactcaga agtggtttat ttctgttaag tacttagctc gtggtttaat atactttgct tttccaaaac atgacttcat tataacaaac agtggctcat aggagtttga	tttagctctg tactctgatt gatcccagtt ggccagacaa tgtcattgta aaaagtttat	60 120 180 240 300 360 420 480 540 600 660 720 780 840 900

```
<211> 797
<212> DNA
<213> Homo sapiens
<400> 38
gggtcgaccc acgcgtccgc aggtttgctg tcttaaaggt ttctaactga tcttgagatt
                                                                       60
gtcccacctt tccatatccc tgcaaaagct gagtggtata gtttggctct gtgtccctac
                                                                      120
ccaaatctca tctggaactg tactcccata attctcacgt gttgtgggag ggacccagta
                                                                      180
                                                                      240
ggaaataatt tgaatcatgg gggtggtttc ccccatacca ttgccatggt agtgaataag
tctcatgaga tctgatgggt ttatcaggac tttctgcttt ggcatcttcc tcatttttct
                                                                      300
cttactctca ctgtgtaaga agtgtctttt gcctcctgcc atgattctga ggcctcccag
                                                                      360
ccatgtggaa ctgtaagtcc aattaaacct ctttttttcc ccagtctcag gtatgtcttt
                                                                      420
                                                                      480
atcaggagtg tgaaaatgga ctaatacaag ttttgtcagt ttttttttt ttttttt
tttttgaggc aggagaatca cttgaactca ggaggtggag gttacaatga accaagatca
                                                                      540
tgccactgcc ccctccagcc tgggtgacag agggagactc catctcaaaa aaaaaaataa
                                                                      600
aaacattacc gggcatggta gcttgcacct gcagtcccag ctacttggga gactgaggtg
                                                                      660
agaggatcac ctgagtgtag gaggtgaaag cctcaccgaa ctatgactga accactgcac
                                                                      720
780
                                                                      797
aaaaagggcg gccgctc
<210> 39
<211> 2042
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (42)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2026)
<223> n equals a,t,g, or c
<400> 39
nggtcccctg caggtaccgg tccggaattc ccgggtcgac cnacgcgtcc gctggagctc
                                                                        60
tggtgtatcg aattgtgtta tgagataagc cactagcagg gacttgaaca ttccattttc
                                                                       120
                                                                       180
tttagatttt gttgtatcag catgtgaata tgctgaatac aacttgtatc ctaaagcata
                                                                       240
caagctataa cattttcacg ttggactcaa atttcttcat catctgtatt gtatgaattt
                                                                       300
tgtatactgt tttgttggtg gatttctaac ataagattgc cagttcctgc tagctttta
aaaagatcct caggttgctg tagctggatg atcacatgtc atttaatttc cgatccttaa
                                                                       360
aatggagtgc gggctaccta agtttgcagg ctgtcttttt atgatcctgt gtttatggaa
                                                                       420
ttgccctgaa gccatggaat gtgaggatgg gtttcattgt agcagtgtgg gtttgttggt
                                                                       480
                                                                       540
ttttgccagt atattttata acaagaaaya ggagmcttgt tggataattc aaggctatat
                                                                       600
 tttggccagt tgataaagat tatatatttg tgagtaacat cttttaagtt ggtatatcct
aaagttgaaa tactctgctg ygtgttactt tctcattatg tttgggctct tttcttcact
                                                                       660
                                                                       720
gtcaatattt ggattacctg aagatgatat cccaattctc tgtaaacaca ttttagatgt
 ttctttaaga gataagaatt aggtcaaact ttttaacatc taaataacaa tgactttgat
                                                                       780
                                                                       840
 tctcaagagt taggggagga taaattgcta taagcttgga caaaattcta attggatttg
                                                                       900
 aaaagcagaa gaaacttact attgcttgga ttatggagcc ctgtttggga gtctaacaca
 gaacagagaa ggacagaatt gtgaaacact ttgctatgaa ttcattgatt cagtagttat
                                                                       960
                                                                      1020
 agtaatactt cctagaagcc actgaagaag atacaaagtg gggagtacaa aggttggatg
                                                                      1080
 gaaaagaaat aagcacagtg ctatagaact agacagtgtc gtaagacctg tcacaagtca
                                                                      1140
 atattotatg aaatgacaga ttotgataag tgtttotoag tttoagtggg tgtaaatott
```

ttgtttgtgg gggttggttt cctttaggag aagttaattg aactgatcct caaaggatga

```
The first term of the first of the state of
```

```
aatttaaaca cctcaaagtc agcatttctc cgtgttgtcc agtgcctagt gaagatgaag
                                                                       1260
actiticity coattycity acticaagta aagctytyaa tytagttyag cyatticica
                                                                       1320
gacctgccag ctgcagtttc cctcctaccg gaagacagaa agactttcag tcctcaagct
                                                                       1380
gaaatgagag agccatccta ccttgaataa atgggcccat tgttaatttt aagctcttga
                                                                       1440
gtattttctt ttatattccc tccaagctac cctgtcatta tgccaagtta gaaaattaat
                                                                       1500
ttaqtttgta taactatatg atgtatattt cacatgtgtg ttcactctgc tttaaaaaata
                                                                       1560
ttaattacct tttgtgtgaa gttcagagac ctgtcttttc ccatgtggca gttttatatg
                                                                       1620
ttttgtggtc acaaatgtca ggaatctcaa tgtaattctg gataaatttt tctgctctat
                                                                       1680
gatttgtaaa gaaatgaaaa tottatattt tttaattgaa aattagtagt tttagaaaaa
                                                                       1740
aacgcactta tttgatttta gtaaacgttg ggcattttga aaagttattc agagaaatgt
                                                                       1800
                                                                       1860
tactggtagg caggactttt gtatctgatg gaggaaaccg atgtagggtt tggataaaat
aagactagca ggctgggcac agtggctcac tcctgtagtc tcagcatttt gggaggacaa
                                                                       1920
ggtggqagqa tcacttgata ccaagagttc aaggttacag tgggctgtag tcatgccact
                                                                       1980
gtactccagt ctgtgccaca gaaccagacc ctgtctcaaa aaaaanaaaa aagggcggcc
                                                                       2040
                                                                       2042
<210> 40
<211> 2145
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (988)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1123)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1167)
<223> n equals a,t,g, or c
<400> 40
                                                                         60
cccacgcgtc cgagagtttt atataaactt atacaatcta aactcttgct cttcctttct
                                                                        120
gactcctgag ggtgagtgtg atggactaga agaggtagcc ttaaaataag tgagcagcta
                                                                        180
gggaacatgc tcaatgggca agagaaaatg accactgacc agtcaatacc tgtgtcaggg
ggagttacca gtacctatat ttatttttaa agtaattaaa aagtagaaca cttacaaatt
                                                                        240
ttccacctat acatgccatg tcttcctcgg ggacagtagc cacatcttat atatttccca
                                                                        300
ccatgcatag gacccagcac acagtgaagc cagtaggcac tcagtgttga atgctcatac
                                                                        360
caggittict getteetgta gitaecetge tgageactge tiecateaea ggitgeaetgg
                                                                        420
gcctcaacac ttctgccatt tccccatttg tctcctccat ggacactgtc aacaatggtc
                                                                        480
                                                                        540
tgtcaacacc tgctctgtgc caaagccagg gagtaggctg gggggatacg gaagagaata
tettteteet tgatgeetge tgtgeeaaca geeceettta ageettgtte acageetttg
                                                                        600
ctgaaacaag catcttgaaa gcaagccatg ttatacaccg catgaccttc atgctctggg
                                                                        660
                                                                        720
cccagctgac tgaactgggg caggccccag agtcatgggc agcctattgt cttgctaatg
                                                                        780
gcctctgact tagcctggag taaaacactg tccaaacaag actggtggtt attcaagcat
aagaatttga actaggaagc caagaatgaa gcaaccggac cattaccatc aaaaaatgat
                                                                        840
taaaggatga agaargaagc caacattcag agagtatctg gttcatgtta ataatggtat
                                                                        900
catattaaaa ggaagataca tgaacttcta ctccaaaagc tcctaaaact gcctttgccc
                                                                        960
acaatgaaca gtgtacccta ggcctggntt ctgttcttgg attcctagat agtctttctt
                                                                       1020
                                                                       1080
ctttgtcact gtgctgatca tttcagtaaa ccccccacta aatcagtgca gctctgatta
ttgcaactaa aacgatccaa atgaagtctc cctttctaga tgntgggttg gagggatgct
                                                                       1140
                                                                       1200
aagacaaaga tgcttaggct ccagagnttt acagagcttc attcaataac actctacttt
ccaaagaact taaatatgag gtctgaagga cttggaccaa gaggcaaacc caagctacag
                                                                       1260
acaccatgtt gyactcagag tgacctctcc cctctgacag cccaggattt ctctatcaag
                                                                       1320
```

			L~++~~~~	tatatassa	tetecteace	1380
tccataagct	agtcatatct	aggaccaccc	Lyctadadat	thettetata	atttaaaact	1440
cctcttgtaa	acagacttct	ggaaggtcca	cttcatcagt	ligitatata	testeagact	1500
gtctatctct	tgtttagatt	cagcatggca	ccgtacgttg	aatggactgt	taatagatgt	
ttgctgaatg	actccaccac	agcattggac	acatcagggg	tacagccaaa	tgcagcatga	1560
tacctctatc	aggaaaatta	aattttaaca	cagccaccaa	atattctata	tttgaagagt	1620
atatgctaat	catgcaattt	taaqtaaaaa	aaaqctqaat	acaaaaaaag	ctgaatatgt	1680
gttttatatc	atriatasstt	casactasas	accaaaaaaa	actcaaaaac	caaatatatq	1740
gettlatate	ctygtgaatt	ttttaattaa	ataaccatat	aattacatot	agacatgtat	1800
tatgcagttt	gagcccaaac	llitaattaa	gcaaccacac	aattacatgt	catcatctct	1860
aaaccttgag	atatgtaaag	accagaaaaa	tatttaaaag	ttaatagtta	taccaccege	1920
ggtcacaaca	ccctgaaaat	gcctaatatt	ggaaayttaa	gcaggattga	tecaggital	
tacttqqatq	qqaqaccaga	tgctataggc	tgaaaaaaga	aagcataagt	acgcacaagc	1980
taatacttaa	taattatctc	ctaatgatag	gactataagt	tctatctctt	ttctttacat	2040
tattcagtat	tttcaaattt	ccctttqaaa	atgtgttatg	tacttgaatt	attagaaaaa	2100
atasatotos	tttaaaaaac	aaaaaaaaa	aaaaagggcg	qccqc		2145
acaaacycca	cccaaaaago		333 3	5 5		
<210> 41						
<211> 1084						
<212> DNA						
<213> Homo	sapiens					
	- <u>-</u>					
<400> 41						
<4002 41	-~	ccactagaac	cacaattcca	cacgtccctt	acccqcttca	60
agaagacgac	agaaggggag	tatttagta	actogoccoc	ttgactagcg	ccctggaaca	120
ctagtcccgg	cattettege	Lycultura	accegeeege	ttgactagcg	aaaccaaaa	180
gccatttggg	tcgtggagtg	cgagcacggc	eggecaateg	ccgagtcaga	gggccaggag	240
gggcgcggcc	attcgccgcc	cggcccctgc	tccgtggctg	gttttctccg	egggegeete	300
qqqcqqaacc	tggagataat	gggcagcacc	tgggggagcc	ctggctgggt	geggeteget	
ctttgcctga	cgggcttagt	gctctcgctc	tacgcgctgc	acgtgaaggc	ggcgcgcgcc	360
caaaaccaaa	attaccacac	gctctgcgac	gtgggcaccg	ccatcagctg	ttcgcgcgtc	420
ttatactaca	agtagagaa	gaatttcaaa	ctaataaaac	atgtgctggg	acaggacagc	480
	9919999149	catatteggt	tocatcttct	acacactaca	gctattgtta	540
atcctcaatc	aacccaacag	cacaccegge	gtgatgetge	tgaggtgggt	gatatetete	600
ggttgcctgc	ggacacgctg	ggeetetgte	Ligargerge	tgagctccct	gtggattatt	660
gctggttctg	tctacctggc	ctggatcctg	ttettegtge	tctatgattt	enageatege:	720
tgtatcacca	cctatgctat	caacgtgagc	ctgatgtggc	tcagtttccg	gaaggtccaa	780
gaaccccagg	gcaaggctaa	gaggcactga	gccctcaacc	caagccaggc	tgaceteate	
tactttactt	tggcatgtga	gccttgccta	agggggcata	tctgggtccc	tagaaggeee	840
tagatgtggg	gcttctagat	taccccctcc	tcctgccata	cccrcacatg	acaatggacc	900
aaatatacca	cacactcact	cttttttaca	cccaqtgcct	ctgactctgt	ccccatgggc	960
tagtatas	acctettee	attgcccagg	gagggaaggt	tctgagcaat	aaagtttctt	1020
cygccccaa	22222222	222222222	22222222	aaaaaaaaa	aaaaaaaac	1080
agatcaatca	adadadada	aaaaaaaaaa	aaaaaaaaaa	aududum		1084
tcga						
	•					
<210> 42						
<211> 925						
<212> DNA						
<213> Homo	sapiens					
(215) 1100						
-100- 10						
<400> 42		acataasass	. הרששתשתשת	caddadtddd	aggcaggctc	60
ggaaatagta	ggaaagtgga	geecedayaa	. ccaayayaya	. catacacaca	aggeaggete	120
cagcacgtac	acatggaaga	gaggtatgaa		. catgggcaga	gccacccaga	180
ccactgctga	gcattctggg	aagctcccag	ggccctatca	grgcarggca	tggaagctgg	240
aatcacttta	tttgaatagt	gaagtctaca	ı acaacctct <u>c</u>	, aagtctgaag	acgagaatcc	
ttcaaggtga	caggeettgg	cccatccctg	, aaccctttcc	: ctcatcctcc	caacagreet.	. 300
tccccaatqc	ctcattttct	. tctacttgta	ı gcaaaaacca	ı ttctkatcaa	ctcagaaatg	360
aacatototo	cagagtatag	ccaaacatqt	ctccaqaata	a cagccattca	acatccagta	420
atenageeee	addatatdda	accttagact	gacttatacc	ctctacttat	tttgtggata	480
accaayyaya	. ayyatatyca		r ctacadaaa	a aaaatataaa	agtgtcatta	540
tctggtcatc		. accaycacts	, crycayyaya	. adaccadct	cagctaaaca	600
tcttctagat	cagatgcctg	Ladayctyca	a cacayaatto	, 9940049000	cagetaaaca	660
gtgggttgta	. gcatctactg	, aggattgcaa	actaggadaa	a accallatel	tctccctctt	720
tctctcttcc	tcagctcttt	ctcaatcttt	actaccettt	tacacacaca	cacacacaca	120

		+-~-a+-~-	anatantta	acatoaoaac	atgaacatct	780
cacacacaaa	cacacacact	tagactagaa	gagicalica	acacgagaac	atgaacacat	840
agagatatgg	tttggctata	tccccaccca	aatctcatct	tgaattgtag	Ciccaalaal	
tcccatatat	tqtaqqaggg	acttggtggg	agataattga	ataatagggg	cagtttccca	900
catgtgttct	catootagto	aataa				925 -
catgegeeee	cacggcagag					
		•				
<210> 43						
<211> 2907						
<212> DNA						
<213> Homo	saprens					
<400> 43						60
attatggccc	gctaacactg	aaggttatag	aacactccca	agaaacagca	agacaaggcc	60
tgaaagtatc	tacaatataa	ccccttccac	tcatgacaag	acattaggac	ccggagccga	120
adadasacaa	aggtccatga	gagatgacac	aatgtggcag	ctctacgaat	ggcagcagcg	180
ggagaaacgg	aggeeeacga	gaaaataa	tcgacacagt	actttgagta	gtcccaaaac	240
tcagttttat	aacaaacaga	gcacccccc	ctgtcttage	acateacett	cccacaatc	300
catggtaaat	atttctgacc	agacaatgca	ctctattccc	acatcaccet	tetattanaa	360
aatagctgct	tatcrgggrt	actcccctca	acgaacttac	agateggaag	tgtttttace	
aattcagaga	ggagatgtga	caataqaccg	cagacacagg	gyccatcacc	Ctaagcatgt	420
ctatatacct	gacagaaggt	catqccagct	ggcctgactt	tacagtstgt	tagtccccag	480
acctccaac	ggaaaacgct	gtcacaagat	gaaggtagag	qcacattata	caaatacaga	540
ageceeaag	tagatattga	taccaaatta	agccgattat	gtgaacaaga	taaagtggtg	600
cccgaagaag	cagacaccga	tacaaaata	ananaaaa	aatacacact	tgaggaaggt	660
catgctctgg	aagagaaact	Leageaacte	cacaaggaga	aacacacgcc	ttaagaagaat	720
ttgctatcag	ccagccmaga	gatagaaatg	catgcagata	eccagoagoa	ccagacage	780
ggtgttmcaa	agggatgatt	tacaaaatgg	actgcttart	acgtgtcgag	aactttctyg	
agccactgsc	gaattggaac	qaagcatgga	gagaatatga	taagttagaa	tacgatgtaa	840
ctgktaccag	gaaccagatg	caagarcagc	tggatcacct	tggtgaagtt	cagacggaat	900
caccaccaat	tragratara	cagattcaga	aagaactttg	qcqaattcag	gatgtcatgg	960
cagcaggaac	taaaataaa	caccasacac	gtactacaga	aataggtatg	ataggatcaa	1020
aagggccgag	Laaacataag	tageaaagag	agggtccaga	ttatagactc	tacaagagtg	1080
agcetttete	aacagttaag	Lacadaaty	agggcccaga	tagagagaga	aaatcacaac	1140
aaccagagtt	aacaacagtg	gcagaagttg	atgaatctaa	Lygayaayaa	aaaccagaac	1200
ctgtttcaga	gatagaaact	tcagttgtta	aaggttccca	ctttcctgtt	ggagtagtcc	
ctccaagagc	aaaatcacca	acacccgaat	cttcgacaat	agcttcctat	gtaaccttga	1260
ggaaaactaa	gaagatgatg	gatctaagaa	cggaaagacc	aagaagtgca	gtggaacagc	1320
tctatttaac	tgaaagtact	cgaccaagga	tgactgtgga	agagcaaatg	gaaagaataa	1380
gaagacatca	acaaccatac	ctgagggaga	agaaaaaagg	qttaaatqtt	atcggtgctt	1440
gaagacacca	acaagegege	200000	atttaaggga	taatccattt	aggactactc	1500
cagaccagcc	accettacaa	ageceecua	accedaggga	tagagaaaat	gatgtaaagc	1560
agactcgaag	gagggatgat	aaygaactgg	acactgccat	cagagaaaac	gaagaaaata	1620
cagassatga	aactcctgca	acagaaattg	ttcaactaaa	ayaaaccyaa	ccccaaaatg	1680
tggacttcag	caaagagtta	aaaaaaactg	aaaacatttc	atatgaaatg	etttttgaat	
ctgagccaaa	tggagtaaat	tctgtggaaa	tgatggataa	agaaagaaac	aaagacaaaa	1740
tacctaaaaa	tottacattc	agccctcaag	atgaaacaca	gaccgcaaat	cataaaccag	1800
aagagcatcc	tgaagaaaat	acaaagaaca	gtgttgacga	acaggaagaa	actgttattt	1860
cttaccaatc	aactcctgag	gtttctagag	gaaatcaaac	aatqqcaqtg	aaaagtctgt	1920
cccacgaacc	taratacta	gesteers	ttccatccac	tcagccgcag	ctcacagaag	1980
	retatatata	tagtettaga	agaactatac	tgacttctgt	tgaaaccatt	2040
gatcacattt	catgugugug	tageceeaga	tagaaccacac	ttatacaata	tattttaaat	2100
caaagctaaa	gacatggacc	ttcagcagtg	LaayaayaLa	tiglacagea	tattttaaat	2160
ctatgaaatt	catagttctg	atgcttttgg	tcacagagca	tcattttatc	acttctggaa	2220
aatgtttatt	ccaaaacagc	tttaatgrcc	catatgtaca	cttcgtaatc	tcaaggttat	
tattctgaca	ccagettget	gctatgattt	. cagagcacat	. aagtaaaggt	gctttttaat	2280
gtgcagtcta	tttccagago	ttacttagtt	gctgatttcc	: agatttcgat	gtttcttaag	2340
tctacctcaa	tttatatata	tattttttc	cttttcattt	tctaaagtta	gttattattt	2400
coatterace	+++++++++	ttttttt	. ccattttagc	tactgcagtg	cttttgtttc	2460
ccaccyaayc	+~+>>>>>+	. ttatatatat	dtatttaaaa	tataccattt	tattgctaag	2520
acacttgatt	LyLaadaact	. cuatatatat	. yuuuuaaa	. egegeeacee	atcaccactt	2580
tgaagtatgt	cctgttttct	gctataatto	: cttdteggte	ayattytaat	gtcagcagtt	2640
actgccacac	tcctgtcago	: ttaaacacaa	atgttacygo	: ttatctttc	ttaaaaaaaa	
aaaaaacaaa	gtgtaggtat	: tttgaagtac	: tgggcttata	ı tttcattgga	atacatgtgt	2700
acaqcaataa	gcaggtttcc	: aaatccggta	cttagtttgt	: gtacaaatgt	: aattatgttc	2760
attgtgtata	tattatacaa	tgagcacato	, taatgtatta	aaggctactt	actattgttt	2820
aaatocaaat	gttcatatct	catttcttt	tttatcatot	: taaataaato	, ttgatgttct	2880
taaaaaaaaa	aaaaaaaaa	ааааааа	J -	~		2907
caaaaaaadd	. uaaaaaaaa				<i>e</i>	

<210> 44 <211> 2780 <212> DNA <213> Homo sapiens

<400> 44 60 ggcacgagca gagagcaata tggctggttc cccaacatgc ctcaccctca tctatatcct 120 ttggcagctc acagggtcag cagcctctgg acccgtgaaa gagctggtcg gttccgttgg tggggccgtg actttccccc tgaagtccaa agtaaagcaa gttgactcta ttgtctggac 180 cttcaacaca accectettg teaceataca gecagaaggg ggeactatea tagtgaeeca 240 aaatcgtaat agggagagag tagacttccc agatggagct actccctgaa ctcagcaaac 300 tgaagaagaa tgactcaggg atctactatg tggggatata cagctcatca tccagcagcc 360 ctccacccag gagtacgtgc tgcatgtcta cgatcacctg tcaaagccta aagtcaccat 420 gggtctgcag agcaataaga atggcacctg tgtgaccaat ctgacatgct gcatggaaca 480 tggggaagag gatgtgatta ttcctggaag gcctgggcag cagccaatga gtcccataat 540 gggtccatcc tccccatctc ctggagatgg ggagaaagtg atatgacctt catctgcgtt 600 gccaggaacc ctgtcagcag aaacttctca agccccatcc ttgccaggaa gctctgtgaa 660 720 ggtgactgcc tctcccctct ccacaggaga ctctgcccag gtcctacacc ttcttcagct 780 cctagccccc atgggaacag acactgtatg gaaactggag gccgctgggt ggtcaccagg ctgggaggaa ggtggcaggt gctccaagac ctgggtcgtt ttcctgagct gacttttctc 840 900 cettecetgt geetecacce attetetgaa ggtgetgetg atgacceaga tteetecatg gtcctcctgt gtctcctgtt ggtgcccctc ctgctcagtc tctttgtact ggggctattt 960 ctttggtttc tgaagagaga gagacaagaa gagaacaatc ctaaaggaag atccagcaaa 1020 tacggttact ccactgtgga aataccgaaa aagatggaaa atccccactc actgctcacg 1080 atgccagaca caccaaggct atttgcctat gagaatgtta tctagacagc agtgcactcc 1140 cctaagtctc tgctcaaaaa aaaaacaatt ctcggcccaa agaaaacaat cagaagaatt 1200 cactgatttg actagaaaca tcaaggaaga atgaagaacg ttgacttttt tccaggataa 1260 attatctctg atgcttcttt agatttaaga gttcataatt ccatccactg ctgagaaatc 1320 tcctcaaacc cagaaggttt aatcacttca tcccaaaaat gggattgtga atgtcagcaa 1380 accataaaaa aagtgcttag aagtattcct atagaaatgt aaatgcaagg tcacacatat 1440 1500 taatgacagc ctgttgtatt aatgatggct ccaggtcagt gtctggagtt tcattccatc 1560 ccagggcttg gatgtcagga ttataccaag agtcttgcta ccaggagggc aagaagacca 1620 aaacagacag acaagtccag cagaagcaga tgcacctgac aaaaatggat gtattaattg 1680 gctctataaa ctatgtgccc agcactatgc tgagcttaca ctaattggtc agacgtgctg 1740 tctgccctca tgaaattggc tccaaatgaa tgaactactt tcatgagcag ttgtagcagg 1800 cctgaccaca gattcccaga gggccaggtg tggatccaca ggacttgaag gtcaaagttc 1860 acaaagatga agaatcaggg tagctgacca tgtttggcag atactataat ggagacacag 1920 aagtgtgcat ggcccaagga caaggacctc cagccaggct tcatttatgc acttgtgctg 1980 caaaagaaaa gtctaggttt taaggctgtg ccagaaccca tcccaataaa gagaccgagt 2040 ctgaagtcac attgtaaatc tagtgtagga gacttggagt caggcagtga gactggtggg gcacgggggg cagtgggtac ttgtaaacct ttaaagatgg ttaattcatt caatagatat 2100 ttattaagaa cctacgcggc ccggcatggt ggctcacacc tgtaatccca gcactttggg 2160 2220 aggccaaggt gggtgggtca tctgaggtca ggagttcaag accagcctgg ccaacatggt 2280 gaaaccccat ctctactaaa gatacaaaaa tttgctgagc gtggtggtgt gcacctgtaa 2340 tcccagctac tcgagaggcc aaggcatgag aatcgcttga acctgggagg tggaggttgc agtgagetga gatggeacca etgeacteeg geetaggeaa egagageaaa aeteeaatae 2400 2460 aaacaaacaa acaaacacct gtgctaggtc agtctggcac gtaagatgaa catccctacc aacacagagc tcaccatctc ttatacttaa gtgaaaaaca tggggaaggg gaaaggggaa 2520 tggctgcttt tgatatgttc cctgacacat atcttgaatg gagacctccc taccaagtga 2580 tgaaagtgtt gaaaaactta ataacaaatg cttgttgggc aagaatggga ttgaggatta 2640 tettetetea gaaaggeatt gtgaaggaat tgageeagat eteteteeet aetgeaaaae 2700 2760 cctattgtag taaaaaagtc ttctttacta tcttaataaa acagatattg tgagattcac 2780 ataaaaaaa aaaaaaaaaa

<210> 45

<211> 1412

<212> DNA

<213> Homo sapiens

```
<220>
<221> SITE
<222> (1362)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1369)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1397)
<223> n equals a,t,g, or c
<400> 45
 cccttcatct gcgttgccag gaaccctgtc agcagaaact tctcaagccc catccttgcc
                                                                        60
 aggaagetet gtgaaggtge tgetgatgae ceagatteet eeatggteet eetgtgtete
                                                                       120
 ctgttggtgc ccctcctgct cagtctcttt gtactggggc tatttctttg gtttctgaag
                                                                       180
 agagagagac aagaagagta cattgaagag aagaagagag tggacatttg tcgggaaact
                                                                       240
 cctaacatat gcccccattc tggagagaac acagagtacg acacaatccc tcacactaat
                                                                       300
 agaacaatcc taaaggaaga tccagcaaat acggtttact ccactgtgga aataccgaaa
                                                                       360
 aagatggaaa atccccactc actgctcacg atgccagaca caccaaggct atttgcctat
                                                                       420
 gagaatgtta tctagacagc agtgcactcc cctaagtctc tgctcaaaaa aaaaacaatt
                                                                       480
 ctcggcccaa agaaaacaat cagaagaatt cactgatttg actagaaaca tcaaggaaga
                                                                       540
 atgaagaacg ttgacttttt tccaggataa attatctctg atgcttcttt agatttaaga
                                                                       600
 gttcataatt ccatccactg ctgagaaatc tcctcaaacc cagaaggttt aatcacttca
                                                                       660
                                                                       720
 tcccaaaaat gggattgtga atgtcagcaa accataaaaa aagtgcttag aagtattcct
                                                                       780
 ataaaaatgt aaatgcaagg tcacacatat taatgacagc ctgttgtatt aatgatggct
                                                                       840
 ccaggtcagt gtctggagtt tcattccatc ccagggcttg gatgtcagga ttataccaag
 agtcttgcta ccaggagggc aagaagacca aaacagacag acaagtccag cagaagcaga
                                                                       900
 tgcacctgac aaaaatggat gtattaattg gctctataaa ctatgtgccc agcaytatgc
                                                                       960
 tgagcttaca ctaattggtc agacatgctg tctgccctca tgaaattggc tccaaatgaw
                                                                      1020
 tgaactactt tcatgagcag ttgtagcagg cctgaccaca gattcccaga gggccaggtg
                                                                      1080
 tggatccaca ggacttgaag gtcaaagttc acaaagatga agaatcaggg tagctgacca
                                                                      1140
 tgtttggcag atactataat ggagacacag aagtgtgcat ggcccaagga caaggacctc
                                                                      1200
 1260
 cagaacccat cccaataaag agaccgagtc tgaagtcaca ttgtaaatct agtgtaggag
                                                                      1320
                                                                      1380
 acttggagtc aggcagtgag actggtgggg cacggggggc antgggtant gtaaaccttt
 taaagatggt taattcntca ttagtgtttt tt
                                                                      1412
<210> 46
<211> 1179
<212> DNA
<213> Homo sapiens
<400> 46
gggctgcagg aattcggcac gagtttaaag ggtgactcgt cccacttgtg ttctctctcc
                                                                        60
                                                                       120
 tggtgcagag ttgcaagcaa gtttatcgga gtatcgccat gaagttcgtc ccctgcctcc
 tgctggtgac cttgtcctgc ctggggactt tgggtcaggc cccgaggcaa aagcaaggaa
                                                                       180
                                                                       240
gcactgggga ggaattccat ttccagactg gagggagaga ttcctgcact atgcgtccca
 geagettggg geaaggtget ggagaagtet ggettegegt tegaetgeeg caacacagae
                                                                       300
                                                                       360
 cagacctact ggtgtgagta cagggggcag cccagcatgt gccaggcttt cgctgctgac
                                                                       420
 eccaaatett aetggaatea ageeetgeag gagetgagge geetteacea tgegtgeeag
                                                                       480
ggggcccegg tgcttaggcc atccgtgtgc agggaggctg gaccccaggc ccatatgcag
                                                                       540
 caggtgactt ccagcctcaa gggcagccca gagcccaacc agcagcctga ggctgggacg
 ccatctctga ggcccaaggc cacagtgaaa ctcacagaag caacacagct gggaaaggac
                                                                       600
 togatggaag agotgggaaa agocaaacco accaccogac ccacagcoaa acctaccoag
                                                                       660
cctggaccca ggcccggagg gaatgaggaa gcaaagaaga aggcctggga acattgttgg
                                                                       720
```

```
aaacccttcc aggccctgtg cgcctttctc atcagcttct tccgagggtg acaggtgaaa
                                                                        780
gacccctaca gatctgacct ctccctgaca gacaaccatc tctttttata ttatgccgct
                                                                        840
ttcaatccaa cgttctcaca ctggaagaag agagtttcta atcagatgca acggcccaaa
                                                                        900
ttcttgatct gcagcttctc tgaagtttgg aaaagaaacc ttcctttctg gagtttgcag
                                                                        960
                                                                       1020
agttcagcaa tatgataggg aacaggtgct gatgggccca agagtgacaa gcatacacaa
ctacttatta tctgtagaag ttttgctttg ttgatctgag ccttctatga aagtttaaat
                                                                       1080
                                                                       1140
atgtaacgca ttcatgaatt tccagtgttc agtaaatagc agctatgtgt gtgcaaaata
aaagaatgat ttcagaaaaa aaaaaaaaa aaaactcga
                                                                       1179
<210> 47
<211> 2031
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (138)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (722)
<223> n equals a,t,g, or c
<400> 47
                                                                         60
ttctccatca ttcacatcat cgccaccctg ctcctcagca cgcagctcta ttacatgggc
cggtggaaac tggactcggg gatcttccgc cgcatcctcc acgtgctcta cacagactgc
                                                                        120
atccggcagt gcagcggngc cgctctacgt ggaccgcatg gtgctgctgg tcatgggcaa
                                                                        180
                                                                        240
cgtcatcaac tggtcgctgg ctgcctatgg gcttatcatg cgccccaatg atttcgcttc
ctacttgttg gccattggca tctgcaacct gctcctttac ttcgccttct acatcatcat
                                                                        300
gaagctccgg agtggggaga ggatcaagct catccccctg ctctgcatcg tttgcacctc
                                                                        360
                                                                         420
cgtggtctgg ggcttcgcgc tcttcttctt cttccaggga ctcagcacct ggcagaaaac
ccctgcagag tcgagggagc acaaccggga ctgcatcctc ctcgacttct ttgacgacca
                                                                         480
 cgacatctgg cactteetet cetecatege catgtteggg teetteetgg tgttretgae
                                                                         540
                                                                         600
 actggatrac gacctggata ctgtgcagyg ggacaagatc tatgtyttct agcaggagct
                                                                         660
qqqcccttcg cttcacctca aggggccctg aagctccttt gtgtcataga ccggtcactc
                                                                         720
 tgtcgtgctg tggggatgag tccccagcac cgctgcccag cactggatgg cagcaggaca
                                                                         780
gnyaggtcta gyttaggctt ggcctgggac agccatgggg tggcatggaa ccttgcagct
                                                                         840
gccctctgcc gaggagcagg cctgctcccc tggaaccccc agatgttggc caaattgctg
                                                                         900
ctttcttctc agtgttgggg ccttccatgg gcccctgtcc tttggctctc catttgtccc
                                                                         960
 tttgcaagag gaaggatgga agggacaccc tccccatttc atgccttgca ttttgcccgt
 cctcctcccc acaatgcccc agcctgggac ctaaggcctc tttttcctcc catactccca
                                                                        1020
                                                                        1080
 ctccagggcc tagtctgggg cctgaatctc tgtcctgtat cagggcccca gttctctttg
                                                                        1140
 ggctgtccct ggctgccatc actgcccatt ccagtcagcc aggatggatg ggggtatgag
                                                                        1200
 attttggggg ttggccagct ggtgccagac ttttggtgct aaggcctgca aggggcctgg
                                                                        1260
 ggcagtgcgt attetettee etetgacetg tgeteaggge tggetettta geaatgeget
                                                                        1320
 cagcccaatt tgagaaccgc cttctgattc aagaggctga attcagaggt cacctcttca
 toccatcago toccagactg atgocagoac caggactgga gggagaagog cotcaccoot
                                                                        1380
 tecetteett ettteeagge eettagtett gecaaacece agetggtgge ettteagtge
                                                                        1440
                                                                        1500
 cattgacact gcccaagaat gtccaggggc aaaggaggga tgatacagag ttcagcccgt
                                                                        1560
 tetqeeteea tagetgtggg caccecagtg cytacettag aaaggggett caggaaggga
                                                                        1620
 tgtgctgttt ccctctacgt gcccagtcct agcctcgctc taggacccag ggctggcttc
                                                                        1680
 taaqtttccg tccagtcttc aggcaagttc tgtgttagtc atgcacacac atacctatga
                                                                        1740
 aaccttqqaq tttacaaaga attgccccag ctctgggcac cctggccacc ctggtccttg
 gateceette gteecacetg gteeaececa gatgetgagg atgggggage teaggegggg
                                                                        1800
 cctctgcttt ggggatggga atgtgttttt ctcccaaact tgtttttata gctctgcttg
                                                                        1860
                                                                        1920
 aagggctggg agatgaggtg ggtctggatc ttttctcaga gcgtctccat gctatggttg
                                                                        1980
 catttccgtt ttctatgaat gaatttgcat tcaataaaca accagactca gaaaaaaaaa
                                                                        2031
 aaaaaaaaa aaaaaaaaa aaaaaaaaa agggcggccg c
```

```
<210> 48
<211> 2031
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (138)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (722)
<223> n equals a,t,g, or c
<400> 48
 ttctccatca ttcacatcat cgccaccctg ctcctcagca cgcagctcta ttacatgggc
                                                                         60
 cggtggaaac tggactcggg gatcttccgc cgcatcctcc acgtgctcta cacagactgc
                                                                        120
                                                                        180
 atcoggoagt goagoggngo ogototaogt ggacogoatg gtgotgotgg toatgggoaa
 cgtcatcaac tggtcgctgg ctgcctatgg gcttatcatg cgccccaatg atttcgcttc
                                                                        240
 ctacttgttg gccattggca tctgcaacct gctcctttac ttcgccttct acatcatcat
                                                                        300
 gaageteegg agtggggaga ggateaaget cateceeetg etetgeateg tttgcaeete
                                                                        360
 cgtggtctgg ggcttcgcgc tcttcttctt cttccaggga ctcagcacct ggcagaaaac
                                                                        420
 ccctgcagag tcgagggagc acaaccggga ctgcatcctc ctcgacttct ttgacgacca
                                                                        480
                                                                        540
 cgacatctgg cactteetet ectecatege catgtteggg teetteetgg tgttretgae
                                                                        600
 actggatrac gacctggata ctgtgcagyg ggacaagatc tatgtyttct agcaggagct
                                                                        660
 gggcccttcg cttcacctca aggggccctg aageteettt gtgtcataga ceggtcacte
 tgtcgtgctg tggggatgag tccccagcac cgctgcccag cactggatgg cagcaggaca
                                                                        720
 gnyaggteta gyttaggett ggcetgggae agecatgggg tggcatggaa cettgeaget
                                                                        780
                                                                        840
 gecetetgee gaggageagg cetgeteece tggaaceece agatgttgge caaattgetg
 ctttcttctc agtgttgggg ccttccatgg gccctgtcc tttggctctc catttgtccc
                                                                        900
 tttgcaagag gaaggatgga agggacaccc tccccatttc atgccttgca ttttgcccgt
                                                                        960
 cctcctcccc acaatgcccc agcctgggac ctaaggcctc tttttcctcc catactccca
                                                                       1020
 ctccagggcc tagtctgggg cctgaatctc tgtcctgtat cagggcccca gttctctttg
                                                                       1080
 ggctgtccct ggctgccatc actgcccatt ccagtcagcc aggatggatg ggggtatgag
                                                                       1140
 attttggggg ttggccagct ggtgccagac ttttggtgct aaggcctgca aggggcctgg
                                                                       1200
 ggcagtgcgt attetettee etetgacetg tgeteaggge tggetettta gcaatgeget
                                                                       1260
                                                                       1320
 cageccaatt tgagaacege ettetgatte aagaggetga atteagaggt caectettea
 teccateage teccagaetg atgecageae caggaetgga gggagaageg ceteaceeet
                                                                       1380
tecetteett ettteeagge cettagtett gecaaacece agetggtgge ettteagtge
 cattgacact gcccaagaat gtccaggggc aaaggaggga tgatacagag ttcagcccgt
                                                                       1500
 tetgeeteea tagetgtggg caccecagtg cytacettag aaaggggett caggaaggga
                                                                       1560
 tgtgctgttt ccctctacgt gcccagtcct agcctcgctc taggacccag ggctggcttc
                                                                       1620
 taagtttccg tccagtcttc aggcaagttc tgtgttagtc atgcacacac atacctatga
                                                                       1680
 aaccttggag tttacaaaga attgccccag ctctgggcac cctggccacc ctggtccttg
                                                                       1740
 gateceette gteecacetg gteeacecea gatgetgagg atgggggage teaggegggg
                                                                       1800
 cctctgcttt ggggatggga atgtgttttt ctcccaaact tgtttttata gctctgcttg
                                                                       1860
 aagggctggg agatgaggtg ggtctggatc ttttctcaga gcgtctccat gctatggttg
                                                                       1920
 catttccgtt ttctatgaat gaatttgcat tcaataaaca accagactca gaaaaaaaaa
                                                                       1980
                                                                       2031
 <210> 49
<211> 1821
<212> DNA
<213> Homo sapiens
<400> 49
ggaattcggc acgagcgtgg atccaagatg gcgacggcga tggattggtt gccgtggtct
                                                                         60
 ttactgettt tetecetgat gtgtgaaaca agegeettet atgtgeetgg ggtegegeet
                                                                        120
```

```
atcaacttcc accagaacga tcccgtagaa atcaaggctg tgaagctcac cagctctcga
                                                                       180
acccagctac cttatgaata ctattcactg cccttctgcc agcccagcaa gataacctac
                                                                       240
aaggcagaga atctgggaga ggtgctgaga ggggaccgga ttgtcaacac ccctttccag
                                                                       300
gttctcatga acagcgagaa gaagtgtgaa gttctgtgca gccagtccaa caagccagtg
                                                                       360
accetgacag tggagcagag ccgactcgtg gccgagcgga tcacagaaga ctactacgtc
                                                                       420
                                                                       480
cacctcattg ctgacaacct gcctgtggcc acccggctgg agctctactc caaccgagac
                                                                       540
agcgatgaca agaagaagga aagtgatatc aaatgggcct ctcgctggga cacttactga
                                                                       600
ccatgagtga cgtccagatc cactggtttt ctatcattaa ctccgttgtt gtggtcttct
tectgteagg tatectgage atgattatea tteggaceet eeggaaggae attgeeaact
                                                                       660
acaacaagga ggatgacatt gaagacacca tggaggagtc tgggtggaag ttggtgcacg
                                                                       720
gegacgtett caggececce ecagtacece atgatectea getecetget gggeteagge
                                                                       780
attcaqctqt tctgtatgat cctcatcgtc atctttgtag ccatgcttgg gatgctgtcg
                                                                       840
                                                                       900
coctcoagce qqqqaqctct catgaccaca gcctgcttcc tcttcatgtt catgggggtg
tttggcggat tttctgctgg ccgtctgtac cgcactttaa aaggccatcg gtggaagaaa
                                                                       960
                                                                      1020
ggagccttct gtacggcaac tctgtaccct ggtgtggttt ttggcatctg cttcgtattg
                                                                      1080
aattgcttca tttggggaaa gcactcatca ggagcggtgc cctttcccac catggtggct
                                                                      1140
ctgctgtgca tgtggttcgg gatctccctg cccctcgtct acttgggcta ctacttcggc
                                                                      1200
ttccqaaagc agccatatga caaccctgtg cgcaccaacc agattccccg gcagatcccc
gagcagcggt ggtacatgaa ccgatttgtg ggcatcctca tggctgggat cttgccttcg
                                                                      1260
gcgccatgtt catcgagctc ttcttcatct tcagtgctat ctgggagaat cagttctatt
                                                                      1320
acctctttgg cttcctgttc cttgttttca tcatcctggt ggtatcctgt tcacaaatca
                                                                      1380
gcatcgtcat ggtgtacttc cagctgtgtg cagaggatta ccgctggtgg tggagaaatt
                                                                      1440
tcctagtctc cgggggctct gcattctacg tcctggttta tgccatcttt tatttcgtta
                                                                      1500
                                                                      1560
acaagtgact gcagcgccaa gcggcatcca ccaagcatca agttggagaa aagggaaccc
                                                                      1620
aaqcaqtaga gagcgatatt ggagtctttt gttcattcaa atcttggatt ttttttttc
cctaagagat tctcttttta gggggaatgg gaaacggaca cctcataaag ggttcaaaga
                                                                      1680
tcatcaattt ttctgacttt ttaaatcatt atcattatta tttttaatta aaaaaatgcc
                                                                      1740
tgtatgcctt tttttggtcg gattgtaaat aaatatacca ttgtcctaca aaaaaaaaa
                                                                      1800
                                                                      1821
aaaaaaactc gagggggggc c
<210> 50
<211> 1094
<212> DNA
<213> Homo sapiens
<400> 50
ccacgcgtcc ggtgcacggc gacgtcttca ggccccccca gtaccccatg atcctcagct
                                                                        60
ccctgctggg ctcaggcatt cagctgttct gtatgatcct catcgtcatc tttgtagcca
                                                                       120
 tgcttgggat gctgtcgccc tccagccggg gagctctcat gaccacagcc tgcttcctct
                                                                       180
 tcatgttcat gggggtgttt ggcggatttt ctgctggccg tctgtaccgc actttaaaag
                                                                       240
 gccatcggtg gaagaaagga gccttctgta cggcaactct gtaccctggt gtggtttttg
                                                                        300
                                                                        360
 gcatctgctt cgtattgaat tgcttcattt ggggaaagca ctcatcagga gcggtgccct
 ttcccaccat ggtggctctg ctgtgcatgt ggttcgggat ctccctgccc ctcgtctact
                                                                        420
 tgggctacta cttcggcttc cgaaagcagc catatgacaa ccctgtgcgc accaaccaga
                                                                        480
                                                                        540
 ttccccggca gatccccgag cagcggtggt acatgaaccg atttgtgggc atcctcatgg
                                                                        600
 ctgggatctt gcccttcggc gccatgttca tcgagctctt cttcatcttc agtgctatct
                                                                        660
 gggagaatca gttctattac ctctttggct tcctgttcct tgttttcatc atcctggtgg
                                                                        720
 tatcctgttc acaaatcagc atcgtcatgg tgtacttcca gctgtgtgca gaggattacc
                                                                        780
 gctggtggtg gagaaatttc ctagtctccg ggggctctgc attctacgtc ctggtttatg
                                                                        840
 ccatctttta tttcgttaac aagctggaca tcgtggagtt catcccctct ctcctctact
 ttggctacac ggccctcatg gtcttgtcct tctggctgct aacgggtacc atcggcttct
                                                                        900
 atgcagccta catgtttgtt cgcaagatct atgctgctgt gaagatagac tgattggagt
                                                                        960
 ggaccacggc caagcctgct ccgtcctcgg acaggaagcc accctgcgtg ggggactgca
                                                                       1020
                                                                       1080
 1094
 aaaaaaaaa aaaa
```

<210> 51 <211> 1963 <212> DNA

<213> Homo sapiens

<213> HOMO	saprens					
<400> 51						
ccccgggct	gcaggaattc	ggcacgagct	gtagttgata	atgttgggaa	taagctctgc	60
	ggcattcagt					120
tatgaaaaca	gtacttggaa	aactgaaaac	tacctaaatg	atcgtctttg	gttgggccgt	180
gttcttagcg	agcagaagcc	ttggccaggg	tctgttgttg	actctcgaag	agcacatagc	240
	gggactggag					300
	acagatgaca					360
	gacacaagga					420
	gagccaagga					480
	cggactcttg					540
	gcagaaacag					600
	gaagatccac					660
	aaagatgcac					720
	gactcaagcc					780
						840
	aaactagcag					900
	cagtgtctga					960
	aagtttgcac					
	cttgtcacat					1020
	tgtgcccagt					1080
	aaagtgaact					1140
	aagatctcac					1200
	tgcacctttt					1260
	gtcatgcaga					1320
	attggggatg					1380
	gccagaagta					1440
	gttagacttg					1500
	aaagcaagtc					1560
tcatgtcata	tcaacaatgt	gagttcaatt	ttggagcaaa	accattcaaa	tacccaccat	1620
ctatgaaatt	tagcactttt	aatgactacg	ccttcctaac	agctgaagaa	aaaatcattt	1680
tgccaaggca	caggcgtctt	gctctgttga	agcaagtcag	tatccgagaa	aactgctgtt	1740
ccctttgttg	tgatgaggta	gcagacacac	aattgaagcc	atgtggacac	agtgacctgt	1800
gcatggattg	tgccttgcag	ctggagacct	gcccattgtg	tcgtaaagaa	atagtatcta	1860
gaatcagaca	gatttctcat	atttcatgac	acatgtgaag	aggcatcgtg	gactttttc	1920
tactcaattc	cagccaatgt	tgaaaaaaaa	aaaaaaaaa	aac		1963
<210> 52						
<211> 1937						
<212> DNA						
<213> Homo :	sapiens					
<400> 52						
ggcacgagct	gtagttgata	atgttgggaa	taagctctgc	aactttcttt	ggcattcagt	60
tgttaaaaac	aaataggatg	caaattcctc	aactccaggt	tatgaaaaca	gtacttggaa	120
aactgaaaac	tacctaaatg	atcgtctttg	gttgggccgt	gttcttagcg	agcagaagcc	180
ttggccaggg	tctgttgttg	actctcgaag	agcacatagc	ccacttccta	gggactggag	240
gtgccgctac	taccatgggt	aattcctgta	tctgccgaga	tgacagtgga	acagatgaca	300
gtgttgacac	ccaacagcaa	caggccgaga	acagtgcagt	acccactgct	gacacaagga	360
gccaaccacg	ggaccctgtt	cggccaccaa	ggaggggccg	aggacctcat	gagccaagga	420
gaaagaaaca	aaatgtggat	gggctagtgt	tggacacact	ggcagtaata	cggactcttg	480
tagataatga	tcaggaaccc	tattcaatga	taacattaca	cgaaatggca	gaaacagatg	540
	ggatgttgtc					600
	tataacattg					660
	tgaaattctc					720
	caggaacaca					780
	aggtttactt					840
	ccccacagtc					900
	taaattgact					960
	taatgatcct		_			1020

agtcctgggc taatgatcct gattatctga aacgtcaagt tggtttctgt gcccagtgga

<221> SITE

```
1080
gcttagacaa tctcttttta aaagaaggta gacagctgac ctatgagaaa gtgaacttga
gtagcattag ggccatgctg aatagcaatg atgtcagcga gtacctgaag atctcacctc
                                                                    1140
atggettaga ggetegetgt gatgeeteet ettttgaaag tgtgegttge acettttgtg
                                                                    1200
tggatgccgg ggtatggtac tatgaagtaa cagtggtcac ttctggcgtc atgcagattg
                                                                    1260
gctgggtcac tcgagacagc aaattcctca atcatgaagg ctacggaatt ggggatgatg
                                                                    1320
aatactcctg tgcgtatgat ggctgccggc agctgatttg gtacaatgcc agaagtagcc
                                                                    1380
tcacatacac ccatgctgga aagaaggaga tacagtagga tttctgttag acttgaatga
                                                                    1440
                                                                    1500
aaagcaaatg atcttctttt taaatggcaa ccagctgcct cctgaaaagc aagtcttttc
atctactgta tctggatttt ttgctgcagc tagtttcatg tcatatcaac aatgtgagtt
                                                                    1560
caattttgga gcaaaaccat tcaaataccc accatctatg aaatttagca cttttaatga
                                                                    1620
ctacgccttc ctaacagctg aagaaaaaat cattttgcca aggcacaggc gtcttgctct
                                                                    1680
gttgaagcaa gtcagtatcc gagaaaactg ctgttccctt tgttgtgatg aggtagcaga
                                                                    1740
cacacaattg aagccatgtg gacacagtga cctgtgcatg gattgtgcct tgcagctgga
                                                                    1800
                                                                    1860
qacctgccca ttgtgtcgta aagaaatagt atctagaatc agacagattt ctcatatttc
atgacacatg tgaagaggca tcgtggactt ttttctactc aattccagcc aatgttgaaa
                                                                    1920
                                                                    1937
aaaaaaaaa aaaaaaa
<210> 53
<211> 770
<212> DNA
<213> Homo sapiens
<400> 53
                                                                      60
cacgggggtc ctgtgccacc gtttccatgg cctgtggtat atgaaaatga tgtgggcctg
                                                                     120
gctccaggcc aaaaggaagc ccaggaaagc tcccagcagg aacatctgct atgatgcatt
                                                                     180
tgtttcttac agtgagcggg atgcctactg ggtggagaac cttatggtcc aggagctgga
                                                                     240
gaacttcaat cccccttca agttgtgtct tcataagcgg gacttcattc ctggcaagtg
                                                                     300
                                                                     360
gatcattgac aatatcattg actccattga aaagagccac aaaactgtct ttgtgctttc
tgaaaacttt gtgaagagtg agtggtgcaa gtatgaactg gacttctccc atttccgtct
                                                                     420
                                                                     480
 ttttgatgag aacaatgatg ctgccattct cattcttctg gagcccattg agaaaaaagc
                                                                     540
 cattccccag cgcttctgca agctgcggaa gataatgaac accaagacct acctggagtg
                                                                     600
 gcccatggac gaggctcagc gggaaggatt ttgggtaaat ctgagagctg cgataaagtc
                                                                     660
ctaggttccc atatttaaga ccagtctttg tctagttggg atctttatgt cactagttat
                                                                     720
 agttaagttc attcagacat aattatataa aaactacgtg gatgtaccgt catttgagga
                                                                     770
 <210> 54
<211> 1081
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (9)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (17)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (35)
<223> n equals a,t,g, or c
<220>
```

```
<222> (1077)
<223> n equals a,t,g, or c
<400> 54
                                                                          60
 tgcacctene actatinggg ttacaaaage tgganeteea eegeggtgge ggeegeteta
 gaactagtgg atcccccggg ctgcaggaat tcggcacgag tcgcccgctt gactagcgcc
                                                                         120
 ctggaacagc catttgggtc gtggagtgcg agcacggccg gccaatcgcc gagtcagagg
                                                                         180
 gccaggaggg gcgcggccat tcgccgcccg gcccctgctc cgtggctggt tttctccgcg
                                                                         240
                                                                         300
 ggcgcctcgg gcggaacctg gagataatgg gcagcacctg ggggagccct ggctgggtgc
                                                                         360
 ggctcgctct ttgcctgacg ggcttagtgc tctcgctcta cgcgctgcac gtgaaggcgg
 cgcgcgcccg ggaccgggat taccgcgcgc tctgcgacgt gggcaccgcc atcagctgtt
                                                                         420
 cgcgcgtctt ctcctccagg tggggcaggg gtttcgggct ggtggagcat gtgctgggac
                                                                         480
 aggacagcat cctcaatcaa tccaacagca tattcggttg catcttctac acactacagc
                                                                         540
 tattgttagg ttgcctgcgg acacgctggg cctctgtcct gatgctgctg agctccctgg
                                                                         600
 tgtctctcgc tggttctgtc tacctggcct ggatcctgtt cttcgtgctc tatgatttct
                                                                         660
 gcattgtttg tatcaccacc tatgctatca acgtgagcct gatgtggctc agtttccgga
                                                                         720
 aggtccaaga accccagggc aaggctaaga ggcactgagc cctcaaccca agccaggctg
                                                                         780
 acctcatctg ctttgctttg gcatgtgagc cttgcctaag ggggcatatc tgggtcccta
                                                                         840
 gaaggcccta gatgtggggc ttctagatta ccccctcctc ctgccatacc crcacatgac
                                                                         900
                                                                         960
 aatggaccaa atgtgccaca cgctcgctct tttttacacc cagtgcctct gactctgtcc
 ccatgggctg gtctccaaag ctctttccat tgcccaggga gggaaggttc tgagcaataa
                                                                        1020
                                                                        1080
 agtttcttag atcaatcaaa aaaaaaaaa agggsggccg tctaaagwtc ccccganggg
                                                                        1081
<210> 55
<211> 720
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (20)
<223> n equals a,t,g, or c
<400> 55
                                                                           60
 ccacgcgtcc gctccgcggn cgcctcgggc ggaacctgga gataatgggc agcacctggg
 ggagccctgg ctgggtgcgg ctcgctcttt gcctgacggg cttagtgctc tcgctctacg
                                                                          120
                                                                          180
 cgctgcacgt gaaggcggcg cgcgcccggg accgggatta ccgcgcgctc tgcgacgtgg
                                                                          240
 gcaccgccat cagctgttcg cgcgtcttct cctccaggtt gcctgsggac acgctgggcc
                                                                          300
 tctgtmctga tgctgctgag ctccctggtg tctctcgctg gttctgtcta cctggsctgg
                                                                          360
 atcotgttct tcgtgctcta tgawtttctg cattgtttgt aatcaccacc tatgctatca
                                                                          420
 acgtgacctg atgtggctca gtttccggaa ggtccaagaa ccccagggca aggctaagag
                                                                          480
 gcactgagcc ctcaacccaa gccaggctga cctcatctgc tttgctttgg catgtgagcc
                                                                          540
 ttgcctaagg gggcatatct gggtccctag aaggccctag atgtggggct tctagattac
                                                                          600
 cccctcctcc tgccataccc gcacatgaca atggaccaaa tgtgccacac gctcgctctt
                                                                          660
 ttttacaccc agtgcctctg actctgtccc catgggctgg tctccaaagc tctttccatt
 gcccagggag ggaaggttct gagcaataaa gtttcttaga tcaaaaaaaa aaaaaaaaa
                                                                          720
 <210> 56
 <211> 499
 <212> DNA
 <213> Homo sapiens
 <400> 56
 gggctgcagg aattcggcac gagccaaaac agctttaatg acccatatgt acacttcgta
                                                                           60
                                                                          120
 atctcaaggt tattattctg acaccagctt gctgctatga tttcagagca cataagtaaa
 ggtgcttttt aatgtgcagt ctatttccag agcttactta gttgctgatt tccagatttc
                                                                          180
 gatgtttctt aagtctaggt gaatttatat atatattttt ttgcttttca ttttctaaag
                                                                          240
  ttagttatta tttccattga agcttgtttt cttttttttc ttcccatttt agctactgca
                                                                          300
```

	gaagta tgtcct ctgcca cactco	tgttt tctgct	tata tatgtattta ataa ttctttctcg aaca caaatgttac	gtcagattgc
<210> 57 <211> 246 <212> PRT <213> Homo sapiens				
<220> <221> SITE <222> (213) <223> Xaa equals	any of the 1	naturally oc	curring L-amino	acids
<400> 57 Met Ala Ala Ala .	Ala Ala Thr 1 5	Lys Ile Leu 10	Leu Cys Leu Pro	Leu Leu - 15
Leu Leu Leu Ser	Gly Trp Ser	Arg Ala Gly 25	Arg Ala Asp Pro 30	His Ser
Leu Cys Tyr Asp 35	Ile Thr Val	Ile Pro Lys 40	Phe Arg Pro Gly 45	Pro Arg
Trp Cys Ala Val	Gln Gly Gln ' 55	Val Asp Glu	Lys Thr Phe Leu 60	His Tyr
Asp Cys Gly Asn 65	Lys Thr Val '	Thr Pro Val	Ser Pro Leu Gly 75	Lys Lys 80
Leu Asn Val Thr	Thr Ala Trp :	Lys Ala Gln 90	Asn Pro Val Leu	Arg Glu 95
Val Val Asp Ile 100	Leu Thr Glu	Gln Leu Arg 105	Asp Ile Gln Leu 110	Glu Asn
Tyr Thr Pro Lys 115		Thr Leu Gln 120	Ala Arg Met Ser 125	Cys Glu
Gln Lys Ala Glu 130	Gly His Ser 135	Ser Gly Ser	Trp Gln Phe Ser 140	Phe Asp
Gly Gln Ile Phe 145	Leu Leu Phe . 150	Asp Ser Glu	Lys Arg Met Trp 155	Thr Thr 160
Val His Pro Gly	Ala Arg Lys 165	Met Lys Glu 170	Lys Trp Glu Asn	Asp Lys 175
Val Val Ala Met 180	Ser Phe His	Tyr Phe Ser 185	Met Gly Asp Cys 190	Ile Gly
Trp Leu Glu Asp 195		Gly Met Asp 200	Ser Thr Leu Glu 205	Pro Ser
Ala Gly Ala Pro 210	Xaa Ala Met 215	Ser Ser Gly	Thr Thr Gln Leu 220	Arg Ala
Thr Ala Thr Thr 225	Leu Ile Leu 230	Cys Cys Leu	Leu Ile Ile Leu 235	Pro Cys 240

Phe Ile Leu Pro Gly Ile

<210> 58

<211> 233

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (168)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 58

Met Val Ser Pro Arg Met Ser Gly Leu Leu Ser Gln Thr Val Ile Leu
1 10 15 .

Ala Leu Ile Phe Leu Pro Gln Thr Arg Pro Ala Gly Val Phe Glu Leu 20 25 30

Gln Ile His Ser Phe Gly Pro Gly Pro Gly Pro Gly Ala Pro Arg Ser 35 40 45

Pro Cys Arg Leu Phe Phe Arg Val Cys Leu Lys Pro Gly Leu Ser Glu 50 55 60

Glu Ala Ala Glu Ser Pro Cys Ala Leu Gly Ala Ala Leu Ser Ala Arg
65 70 75 80

Gly Pro Val Tyr Thr Glu Gln Pro Gly Ala Pro Ala Pro Asp Leu Pro 85 90 95

Leu Pro Asp Gly Leu Leu Gln Val Pro Phe Arg Asp Ala Trp Pro Gly
100 105 110

Thr Phe Ser Phe Ile Ile Glu Thr Trp Arg Glu Glu Leu Gly Asp Gln
115 120 125

Ile Gly Gly Pro Ala Trp Ser Leu Leu Ala Arg Val Ala Gly Arg Arg 130 135 140

Arg Leu Ala Ala Gly Gly Arg Gly Pro Gly Thr Phe Ser Ala Gln Ala 145 150 155 160

Pro Gly Ser Cys Ala Ser Arg Xaa Ala Arg Ala Ala Ser Arg Leu Pro 165 170 175

Ser Gly Pro Arg Ala Arg Ala Ser Ala Val Arg Ala Ala Pro Pro Arg 180 185 190

Gly Ala Val Arg Asp Cys Ala Pro Ala His Arg Ser Arg Pro Asn Val

Arg Arg Arg Cys Ala Glu Gln Ala Ala Ala Leu Ser Met Ala Ser 210 215 220

Val Asn Ser Pro Val Asn Ala Asp Ala 225 230

```
<210> 59
```

<213> Homo sapiens

<400> 59

Met Ala Gly Ser Pro Thr Cys Leu Thr Leu Ile Tyr Ile Leu Trp Gln 1 5 10 15

Leu Thr Gly Ser Ala Ala Ser Gly Pro Val Lys Glu Leu Val Gly Ser 20 25 30

Val Gly Gly Ala Val Thr Phe Pro Leu Lys Ser Lys Val Lys Gln Val
35 40 45

Asp Ser Ile Val Trp Thr Phe Asn Thr Thr Pro Leu Val Thr Ile Gln
50 55 60 -

Pro Glu Gly Gly Thr Ile Ile Val Thr Gln Asn Arg Asn Arg Glu Arg 65 70 75 80

Val Asp Phe Pro Asp Gly Gly Tyr Ser Leu Lys Leu Ser Lys Leu Lys 85 90 95

Lys Asn Asp Ser Gly Ile Tyr Tyr Val Gly Ile Tyr Ser Ser Ser Leu 100 105 110

Gln Gln Pro Ser Thr Gln Glu Tyr Val Leu His Val Tyr Glu His Leu 115 120 125

Ser Lys Pro Lys Val Thr Met Gly Leu Gln Ser Asn Lys Asn Gly Thr 130 135 140

Cys Val Thr Asn Leu Thr Cys Cys Met Glu His Gly Glu Glu Asp Val 145 150 155 160

Ile Tyr Thr Trp Lys Ala Leu Gly Gln Ala Ala Asn Glu Ser His Asn 165 170 175

Gly Ser Ile Leu Pro Ile Ser Trp Arg Trp Gly Glu Ser Asp Met Thr 180 185 190

Phe Ile Cys Val Ala Arg Asn Pro Val Ser Arg Asn Phe Ser Ser Pro 195 200 205

Ile Leu Ala Arg Lys Leu Cys Glu Gly Ala Ala Asp Asp Pro Asp Ser 210 215 220

Ser Met Val Leu Leu Cys Leu Leu Leu Val Pro Leu Leu Leu Ser Leu 225 230 235 240

Phe Val Leu Gly Leu Phe Leu Trp Phe Leu Lys Arg Glu Arg Glu Glu 245 250 255

Glu Tyr Ile Glu Glu Lys Lys Arg Val Asp Ile Cys Arg Glu Thr Pro

Asn Ile Cys Pro His Ser Gly Glu Asn Thr Glu Tyr Asp Thr Ile Pro 275 280 285

<211> 335

<212> PRT

His Thr Asn Arg Thr Ile Leu Lys Glu Asp Pro Ala Asn Thr Val Tyr 290 295 300

Ser Thr Val Glu Ile Pro Lys Lys Met Glu Asn Pro His Ser Leu Leu 305 310 315 320

Thr Met Pro Asp Thr Pro Arg Leu Phe Ala Tyr Glu Asn Val Ile 325 330 335

<210> 60

<211> 84

<212> PRT

<213> Homo sapiens

<400> 60

Met Lys Leu Leu Tyr Leu Phe Leu Ala Ile Leu Leu Ala Ile Glu Glu

1 5 10 15

Pro Val Ile Ser Gly Lys Arg His Ile Leu Arg Cys Met Gly Asn Ser 20 25 30

Gly Ile Cys Arg Ala Ser Cys Lys Lys Asn Glu Gln Pro Tyr Leu Tyr 35 40 45

Cys Arg Asn Cys Gln Ser Cys Cys Leu Gln Ser Tyr Met Arg Ile Ser 50 55 60

Ile Ser Gly Lys Glu Glu Asn Thr Asp Trp Ser Tyr Glu Lys Gln Trp 65 70 75 80

Pro Arg Leu Pro

<210> 61

<211> 223

<212> PRT

<213> Homo sapiens

. <400> 61

Met Lys Phe Val Pro Cys Leu Leu Leu Val Thr Leu Ser Cys Leu Gly
1 5 10 15

Thr Leu Gly Gln Ala Pro Arg Gln Lys Gln Gly Ser Thr Gly Glu Glu 20 25 30

Phe His Phe Gln Thr Gly Gly Arg Asp Ser Cys Thr Met Arg Pro Ser 35 40 45

Ser Leu Gly Gln Gly Ala Gly Glu Val Trp Leu Arg Val Asp Cys Arg 50 55 60

Asn Thr Asp Gln Thr Tyr Trp Cys Glu Tyr Arg Gly Gln Pro Ser Met 65 70 75 80

Cys Gln Ala Phe Ala Ala Asp Pro Lys Ser Tyr Trp Asn Gln Ala Leu 85 90 95

Gln Glu Leu Arg Arg Leu His His Ala Cys Gln Gly Ala Pro Val Leu 100 105 110 Arg Pro Ser Val Cys Arg Glu Ala Gly Pro Gln Ala His Met Gln Gln 115 120 125

Val Thr Ser Ser Leu Lys Gly Ser Pro Glu Pro Asn Gln Gln Pro Glu 130 135 140

Ala Gly Thr Pro Ser Leu Arg Pro Lys Ala Thr Val Lys Leu Thr Glu 145 150 155 160

Ala Thr Gln Leu Gly Lys Asp Ser Met Glu Glu Leu Gly Lys Ala Lys 165 170 175

Pro Thr Thr Arg Pro Thr Ala Lys Pro Thr Gln Pro Gly Pro Arg Pro
180 185 190

Gly Gly Asn Glu Glu Ala Lys Lys Lys Ala Trp Glu His Cys Trp Lys
195 200 205

Pro Phe Gln Ala Leu Cys Ala Phe Leu Ile Ser Phe Phe Arg Gly 210 215 220

<210> 62

<211> 82

<212> PRT

<213> Homo sapiens

<400> 62

Met Ala Ile Ser Cys Trp Ala Ser Leu Thr Val Lys Ser Leu Tyr Cys
1 10 15

Leu Leu Gly Phe Trp Trp Glu Ala Val Ile Ser Ser Asn Glu Leu Pro 20 25 30

Leu Pro Trp Ile Cys Gln Glu Ala Asp Gly Asn Leu Ala Asn Ser Gly
35 40 45

Arg Tyr Gln Ala Pro Ser Ser Ala Pro Val Thr Leu Phe Tyr Thr Cys
50 55 60

Gly Ser Thr Thr Val Cys Ser Glu Gly Gln Ser Leu Pro Leu Leu Cys
65 70 75 80

Phe Ser

<210> 63

<211> 151

<212> PRT

<213> Homo sapiens

<400> 63

Met Asn Gly Leu Leu Phe Pro His Thr Phe Ile Leu Ser Met Val

Phe Pro Thr Ser Leu Ala Ile Gln Leu Leu Phe Leu Leu Pro Lys Met 20 25 30

Ser Glu His Ser Leu Ser Val Gln Leu Ser Pro His Leu Thr Ser Ser

40

35

45

Gly Thr Gly Asp Leu Ser Tyr Gly Tyr Gln Gly Arg Ser Phe Glu Pro

					85					90					95	
-	Val	Gly	Thr	Arg 100	Pro	Arg	Val	Asp	Ser 105	Met	Ser	Ser	Val	Glu 110	Glu	Asp
	Asp	Tyr	Asp 115	Thr	Leu	Thr	Asp	Ile 120	Asp	Ser	Asp	Lys	Asn 125	Val	Ile	Arg
,	Thr	Lys 130	Gln	Tyr	Leu	Tyr	Val 135	Ala	Asp	Leu	Ala	Arg 140	Lys	Asp	Lys	Arg
	Val 145	Leu	Arg	Lys	Lys	Tyr 150	Gln	Ile	Tyr	Phe	Trp 155	Asn	Ile	Ala	Thr	Ile 160
	Ala	Val	Phe	Tyr	Ala 165	Leu	Pro	Val	Val	Gln 170	Leu	Val	Ile	Thr	Tyr 175	Gln
	Thr	Val	Val	Asn 180	Val	Thr	Gly	Asn	Gln 185	Asp	Ile	Cys	Tyr	Tyr 190	Asn	Phe
	Leu	Cys	Ala 195	His	Pro	Leu	Gly	Asn 200	Leu	Ser	Leu	Pro	Cys 205	Val	Ala	Pro
	Ser	Ser 210	Ala	Phe	Asn	Asn	Ile 215	Leu	Ser	Asn	Leu	Gly 220	Tyr	Ile	Leu	Leu
	Gly 225	Leu	Leu	Phe	Leu	Leu 230	Ile	Ile	Leu	Gln	Arg 235	Glu	Ile	Asn	His	Asn 240
	Arg	Ala	Leu	Leu	Arg 245	Asn	Asp	Leu	Cys	Ala 250	Leu	Glu	Cys	Gly	Ile 255	Pro
	Lys	His	Phe	Gly 260	Leu	Phe	Tyr	Ala	Met 265		Thr	Xaa	Leu	Met 270	Met	Glu
	Gly	Leu	Leu 275		Ala	Cys	Tyr	His 280	Val	Суз	Pro	Asn	Tyr 285	Thr	Asn	Phe
	Gln	Phe 290	Asp	Thr	Ser	Phe	Met 295		Met	Ile	Ala	Gly 300	Leu	Cys	Met	Leu
-	Lys 305		Tyr	Gln	Lys	Arg 310		Pro	Asp	Ile	Asn 315		Ser	Xaa	Tyr	Ser 320
	Ala	Tyr	Ala	. Cys	Leu 325		Ile	Val	Ile	Phe 330		Ser	Val	Leu	Gly 335	Val
	Val	Phe	Gly	Lys 340		Asn	Thr	Ala	Phe 345		Ile	Val	Phe	Ser 350		Ile
	His	Ile	11∈ 355		Thr	Leu	. Leu	Leu 360		Thr	Gln	. Leu	. Tyr 365	Tyr	Met	Gly
	Arg	Trp 370		: Leu	l Asp	Ser	Gly 375		Phe	e Arg	g Arg	380		His	Val	Lei
	Tyr 385		Asp	Cys	: Ile	Arg 390		Cys	s Ser	Gly	7 Ala 395		Leu	Arg	Gly	Pro 400

His Gly Ala Ala Gly His Gly Gln Arg His Gln Leu Val Ala Gly Cys $$_{405}$$

Leu Trp Ala Tyr His Ala Pro Gln 420

```
<210> 65
<211> 290
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (166)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (268)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (272)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 65
Met Pro Leu Leu Thr Leu Tyr Leu Leu Phe Trp Leu Ser Gly Tyr
Ser Ile Ala Thr Gln Ile Thr Gly Pro Thr Thr Val Asn Gly Leu Glu
Arg Gly Ser Leu Thr Val Gln Cys Val Tyr Arg Ser Gly Trp Glu Thr
Tyr Leu Lys Trp Trp Cys Arg Gly Ala Ile Trp Arg Asp Cys Lys Ile
Leu Val Lys Thr Ser Gly Ser Glu Gln Glu Val Lys Arg Asp Arg Val
Ser Ile Lys Asp Asn Gln Lys Asn Arg Thr Phe Thr Val Thr Met Glu
Asp Leu Met Lys Thr Asp Ala Asp Thr Tyr Trp Cys Gly Ile Glu Lys
                                 105
Thr Gly Asn Asp Leu Gly Val Thr Val Gln Val Thr Ile Asp Pro Ala
        115
Pro Val Thr Gln Glu Glu Thr Ser Ser Pro Thr Leu Thr Gly His
                         135
His Leu Asp Asn Arg His Lys Leu Leu Lys Leu Ser Val Leu Leu Pro
                     150
Leu Ile Phe Thr Ile Xaa Leu Leu Leu Leu Val Ala Ala Ser Leu Leu
                                     170
                 165
Ala Trp Arg Met Met Lys Tyr Gln Gln Lys Ala Ala Gly Met Ser Pro
                                 185
```

Glu Gln Val Leu Gln Pro Leu Glu Gly Asp Leu Cys Tyr Ala Asp Leu 195 200 205

Thr Leu Gln Leu Ala Gly Thr Ser Pro Arg Lys Ala Thr Thr Lys Leu 210 215 220

Ser Ser Ala Gln Val Asp Gln Val Glu Val Glu Tyr Val Thr Met Ala 225 230 235 240

Ser Leu Pro Lys Glu Asp Ile Ser Tyr Ala Ser Leu Thr Leu Gly Ala 245 250 255

Glu Asp Gln Glu Pro Thr Tyr Cys Asn Met Gly Xaa Leu Ser Ser Xaa 260 265 270

Leu Pro Gly Arg Gly Pro Glu Glu Pro Thr Glu Tyr Ser Thr Ile Ser 275 280 285 -

Arg Pro 290

<210> 66 <211> 118

<212> PRT

<213> Homo sapiens

<400> 66

Met Pro Gly Pro Ala Ser Pro Ala Gly Trp Phe Leu Leu Leu Tyr
1 5 10 15

Pro Leu Pro Pro Ala Pro Cys Leu Val Pro Trp Gly Ser Pro Pro Gly 20 25 30

Thr Pro Ala Arg Pro Pro Ala Ala Gly His Pro His Arg Leu Pro Ala
35 40 45

Val His Ala Pro Leu Val Gly Asp Leu Ala Pro Pro Cys Pro Leu Thr 50 55 60

Ala Arg Leu Ala Pro Ala Pro Ala Thr Val Ser Asp Phe Ala Pro Trp 65 70 75 80

Ala Arg Ser Pro Asp Ser Cys Ser Ala Ala Asn Ser Trp Gly Leu Leu 85 90 95

Cys His Pro Gly Gly Thr Cys Gln Pro Leu Val Pro Gly Pro Gly Ser

Ala Ser Leu Gly Asp Leu 115

<210> 67

<211> 377

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (164) <223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (213)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 67

Met Ala Thr Ala Met Asp Trp Leu Pro Trp Ser Leu Leu Leu Phe Ser 1 5 10 15

Leu Met Cys Glu Thr Ser Ala Phe Tyr Val Pro Gly Val Ala Pro Ile 20 25 30

Asn Phe His Gln Asn Asp Pro Val Glu Ile Lys Ala Val Lys Leu Thr 35 40 45

Ser Ser Arg Thr Gln Leu Pro Tyr Glu Tyr Tyr Ser Leu Pro Phe Cys 50 55 60

Gln Pro Ser Lys Ile Thr Tyr Lys Ala Glu Asn Leu Gly Glu Val Leu 65 70 75 80

Arg Gly Asp Arg Ile Val Asn Thr Pro Phe Gln Val Leu Met Asn Ser 85 90 95

Glu Lys Lys Cys Glu Val Leu Cys Ser Gln Ser Asn Lys Pro Val Thr

Leu Thr Val Glu Gln Ser Arg Leu Val Ala Glu Arg Ile Thr Glu Asp 115 120 125

Tyr Tyr Val His Leu Ile Ala Asp Asn Leu Pro Val Ala Thr Arg Leu 130 135 140

Glu Leu Tyr Ser Asn Arg Asp Ser Asp Asp Lys Lys Lys Glu Ser Asp 145 150 155 160

Ile Lys Trp Xaa Ser Arg Trp Asp Thr Tyr Leu Thr Met Ser Asp Val 165 170 175

Gln Ile His Trp Phe Ser Ile Ile Asn Ser Val Val Val Phe Phe 180 185 190

Leu Ser Gly Ile Leu Ser Met Ile Ile Ile Arg Thr Leu Arg Lys Asp 195 200 205

Ile Ala Asn Tyr Xaa Lys Glu Asp Asp Ile Glu Asp Thr Met Glu Glu 210 215 220

Ser Gly Trp Lys Leu Val His Gly Asp Val Phe Arg Pro Pro Pro Val 225 230 235 240

Pro His Asp Pro Gln Leu Pro Ala Gly Leu Arg His Ser Ala Val Leu 245 250 255

Tyr Asp Pro His Arg His Leu Cys Ser His Ala Trp Asp Ala Val Ala 260 265 270

Leu Gln Pro Gly Ser Ser His Asp His Ser Leu Leu Pro Leu His Val

275 280 285 His Gly Gly Val Trp Arg Ile Phe Cys Trp Pro Ser Val Pro His Phe 295 Lys Arg Pro Ser Val Glu Glu Arg Ser Leu Leu Tyr Gly Asn Ser Val 310 Pro Trp Cys Gly Phe Trp His Leu Leu Arg Ile Glu Leu Leu His Leu Gly Lys Ala Leu Ile Arg Ser Gly Ala Leu Ser His His Gly Gly Ser _ 345 Ala Val His Val Val Arg Asp Leu Pro Ala Pro Arg Leu Leu Gly Leu Leu Leu Arg Leu Pro Lys Ala Ala Ile 370 375 <210> 68 <211> 55 <212> PRT <213> Homo sapiens <400> 68 Met Trp Phe Leu His Trp Thr Leu Leu Gly Tyr Gly Pro Ala Gln Ile Leu Gly Met Trp Ala Val Ala Pro Leu Lys His Gln Trp Ala Glu Asp 25 Glu Ser Trp Tyr Pro Pro Gly Thr Pro Pro Ser Ala Leu His Phe Thr 40 Cys Asp Pro Gly Thr Ser Tyr <210> 69 <211> 87 <212> PRT <213> Homo sapiens <400> 69 Met Phe Tyr Leu Phe Leu Val Leu Val Leu Pro Leu Leu His Lys 10 Glu Leu Cys Ser Ile Glu Arg Pro Val Tyr Pro Cys Leu Phe Val Ile 20 Ser Gly Lys Ser Ser Met Ser Ser Phe Leu Cys Gln Phe Arg Trp Lys 40 Phe Trp Gly Arg Arg Glu Asp Gly Glu Lys Val Gln Asn Lys Ser Met 50

Leu Gly Glu Ile Ser Gln Cys Ser Ala Trp Asp Tyr Tyr Thr Cys Val

70

Ala Ala Leu Lys Leu Gly Leu 85

<210> 70

<211> 576

<212> PRT

<213> Homo sapiens

<400> 70

Met Ile Val Phe Gly Trp Ala Val Phe Leu Ala Ser Arg Ser Leu Gly
1 5 10 15

Gln Gly Leu Leu Thr Leu Glu Glu His Ile Ala His Phe Leu Gly
20 25 30

Thr Gly Gly Ala Ala Thr Thr Met Gly Asn Ser Cys Ile Cys Arg Asp 35 40 45 .

Asp Ser Gly Thr Asp Asp Ser Val Asp Thr Gln Gln Gln Gln Ala Glu
50 55 60

Asn Ser Ala Val Pro Thr Ala Asp Thr Arg Ser Gln Pro Arg Asp Pro 65 70 75 80

Val Arg Pro Pro Arg Arg Gly Arg Gly Pro His Glu Pro Arg Arg Lys
85 90 95

Lys Gln Asn Val Asp Gly Leu Val Leu Asp Thr Leu Ala Val Ile Arg
100 105 110

Thr Leu Val Asp Asn Asp Gln Glu Pro Pro Tyr Ser Met Ile Thr Leu 115 120 125

His Glu Met Ala Glu Thr Asp Glu Gly Trp Leu Asp Val Val Gln Ser 130 135 140

Leu Ile Arg Val Ile Pro Leu Glu Asp Pro Leu Gly Pro Ala Val Ile 145 150 155 160

Thr Leu Leu Asp Glu Cys Pro Leu Pro Thr Lys Asp Ala Leu Gln
165 170 175

Lys Leu Thr Glu Ile Leu Asn Leu Asn Gly Glu Val Ala Cys Gln Asp 180 185 190

Ser Ser His Pro Ala Lys His Arg Asn Thr Ser Ala Val Leu Gly Cys 195 200 205

Leu Ala Glu Lys Leu Ala Gly Pro Ala Ser Ile Gly Leu Leu Ser Pro 210 215 220

Gly Ile Leu Glu Tyr Leu Leu Gln Cys Leu Lys Leu Gln Ser His Pro 225 230 235 240

Thr Val Met Leu Phe Ala Leu Ile Ala Leu Glu Lys Phe Ala Gln Thr
245 250 255

Ser Glu Asn Lys Leu Thr Ile Ser Glu Ser Ser Ile Ser Asp Arg Leu 260 265 270

- Val Thr Leu Glu Ser Trp Ala Asn Asp Pro Asp Tyr Leu Lys Arg Gln 275 280 285
- Val Gly Phe Cys Ala Gln Trp Ser Leu Asp Asn Leu Phe Leu Lys Glu 290 295 300
- Gly Arg Gln Leu Thr Tyr Glu Lys Val Asn Leu Ser Ser Ile Arg Ala 305 310 315 320
- Met Leu Asn Ser Asn Asp Val Ser Glu Tyr Leu Lys Ile Ser Pro His 325 330 335
- Gly Leu Glu Ala Arg Cys Asp Ala Ser Ser Phe Glu Ser Val Arg Cys 340 345 350
- Thr Phe Cys Val Asp Ala Gly Val Trp Tyr Tyr Glu Val Thr Val Val 355 360 365
- Thr Ser Gly Val Met Gln Ile Gly Trp Ala Thr Arg Asp Ser Lys Phe 370 375 380
- Leu Asn His Glu Gly Tyr Gly Ile Gly Asp Asp Glu Tyr Ser Cys Ala 385 390 395 400
- Tyr Asp Gly Cys Arg Gln Leu Ile Trp Tyr Asn Ala Arg Ser Lys Pro $405 \hspace{1cm} 410 \hspace{1cm} 415 \hspace{1cm}$
- His Ile His Pro Cys Trp Lys Glu Gly Asp Thr Val Gly Phe Leu Leu 420 425 430
- Asp Leu Asn Glu Lys Gln Met Ile Phe Phe Leu Asn Gly Asn Gln Leu 435 440 445
- Pro Pro Glu Lys Gln Val Phe Ser Ser Thr Val Ser Gly Phe Phe Ala 450 455 460
- Ala Ala Ser Phe Met Ser Tyr Gln Gln Cys Glu Phe Asn Phe Gly Ala 465 470 475 480
- Lys Pro Phe Lys Tyr Pro Pro Ser Met Lys Phe Ser Thr Phe Asn Asp 485 490 495
- Tyr Ala Phe Leu Thr Ala Glu Glu Lys Ile Ile Leu Pro Arg His Arg 500 505 510
- Arg Leu Ala Leu Leu Lys Gln Val Ser Ile Arg Glu Asn Cys Cys Ser 515 520 525
- Leu Cys Cys Asp Glu Val Ala Asp Thr Gln Leu Lys Pro Cys Gly His 530 540
- Ser Asp Leu Cys Met Asp Cys Ala Leu Gln Leu Glu Thr Cys Pro Leu 545 550 555
- Cys Arg Lys Glu Ile Val Ser Arg Ile Arg Gln Ile Ser His Ile Ser 565 570 575

<210> 71

<211> 384

<212> PRT

<213> Homo sapiens

<400> 71

Met Ala Arg Ala Leu Val Gln Leu Trp Ala Ile Cys Met Leu Arg Val 1 5 10 15

Ala Leu Ala Thr Val Tyr Phe Gln Glu Glu Phe Leu Asp Gly Glu His 20 25 30

Trp Arg Asn Arg Trp Leu Gln Ser Thr Asn Asp Ser Arg Phe Gly His
35 40 45

Phe Arg Leu Ser Ser Gly Lys Phe Tyr Gly His Lys Glu Lys Asp Lys
50 55 60

Gly Leu Gln Thr Thr Gln Asn Gly Arg Phe Tyr Ala Ile Ser Ala Arg
65 70 75 80

Phe Lys Pro Phe Ser Asn Lys Gly Lys Thr Leu Val Ile Gln Tyr Thr 85 90 95

Val Lys His Glu Gln Lys Met Asp Cys Gly Gly Gly Tyr Ile Lys Val 100 105 110

Phe Pro Ala Asp Ile Asp Gln Lys Asn Leu Asn Gly Lys Ser Gln Tyr 115 120 125

Tyr Ile Met Phe Gly Pro Asp Ile Cys Gly Phe Asp Ile Lys Lys Val 130 135 140

His Val Ile Leu His Phe Lys Asn Lys Tyr His Glu Asn Lys Lys Leu 145 150 155 160

Ile Arg Cys Lys Val Asp Gly Phe Thr His Leu Tyr Thr Leu Ile Leu 165 170 175

Arg Pro Asp Leu Ser Tyr Asp Val Lys Ile Asp Gly Gln Ser Ile Glu 180 185 190

Ser Gly Ser Ile Glu Tyr Asp Trp Asn Leu Thr Ser Leu Lys Lys Glu 195 200 205

Thr Ser Pro Ala Glu Ser Lys Asp Trp Glu Gln Thr Lys Asp Asn Lys 210 215 220

Ala Gln Asp Trp Glu Lys His Phe Leu Asp Ala Ser Thr Ser Lys Gln 225 230 235 240

Ser Asp Trp Asn Gly Asp Leu Asp Gly Asp Trp Pro Ala Pro Met Leu 245 250 255

Gln Lys Pro Pro Tyr Gln Asp Gly Leu Lys Pro Glu Gly Ile His Lys 260 265 270

Asp Val Trp Leu His Arg Lys Met Lys Asn Thr Asp Tyr Leu Thr Gln 275 280 285

Tyr Asp Leu Ser Glu Phe Glu Asn Ile Gly Ala Ile Gly Leu Glu Leu

	290					295					300				
Trp 305	Gln	Val	Arg	Ser	Gly 310	Thr	Ile	Phe	Asp	Asn 315	Phe	Leu	Ile	Thr	Asp 320
Asp	Glu	Glu	Tyr	Ala 325	Asp	Asn	Phe	Gly	Lys 330	Ala	Thr	Trp	Gly	Glu 335	Thr
Lys	Gly	Pro	Glu 340	Arg	Glu	Met	Asp	Ala 345	Ile	Gln	Ala	Lys	Glu 350	Glu	Met
Lys	Lys	Ala 355	Arg	Glu	Glu	Glu	Glu 360	Glu	Glu	Leu	Leu	Ser 365	Gly	Lys	Ile
Asn	Arg 370	His	Glu	His	Tyr	Phe 375	Asn	Gln	Phe	His	Arg 380	Arg	Asn	Glu	Leu

IJ

<210> 72 <211> 341 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (51) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (67) <223> Xaa equals any of the naturally occurring L-amino acids <400> 72 Met Val Pro Ala Ala Gly Ala Leu Leu Trp Val Leu Leu Leu Asn Leu Gly Pro Arg Ala Ala Gly Ala Gln Gly Leu Thr Gln Thr Pro Thr Glu Met Gln Arg Val Ser Leu Arg Phe Gly Gly Pro Met Thr Arg Ser Tyr Arg Ser Xaa Ala Arg Thr Gly Leu Pro Arg Lys Thr Arg Ile Ile Leu Glu Asp Xaa Asn Asp Ala Met Ala Asp Ala Asp Arg Leu Ala Gly Pro Ala Ala Ala Glu Leu Leu Ala Ala Thr Val Ser Thr Gly Phe Ser Arg 90 Ser Ser Ala Ile Asn Glu Glu Asp Gly Ser Ser Glu Glu Gly Val Val 100 Ile Asn Ala Gly Lys Asp Ser Thr Ser Arg Glu Leu Pro Ser Ala Thr

120

Pro Asn Thr Ala Gly Ser Ser Ser Thr Arg Phe Ile Ala Asn Ser Gln 130 135 140

Glu Pro Glu Ile Arg Leu Thr Ser Ser Leu Pro Arg Ser Pro Gly Arg 145 150 155 160

Ser Thr Glu Asp Leu Pro Gly Ser Gln Ala Thr Leu Ser Gln Trp Ser 165 170 175

Thr Pro Gly Ser Thr Pro Ser Arg Trp Pro Ser Pro Ser Pro Thr Ala 180 185 190

Met Pro Ser Pro Glu Asp Leu Arg Leu Val Leu Met Pro Trp Gly Pro 195 200 205

Trp His Cys His Cys Lys Ser Gly Thr Met Ser Arg Ser Arg Ser Gly 210 215 220

Lys Leu His Gly Leu Ser Gly Arg Leu Arg Val Gly Ala Leu Ser Gln 225 230 235 240

Leu Arg Thr Glu His Lys Pro Cys Thr Tyr Gln Gln Cys Pro Cys Asn 245 250 255

Arg Leu Arg Glu Glu Cys Pro Leu Asp Thr Ser Leu Cys Thr Asp Thr 260 265 270

Asn Cys Ala Ser Gln Ser Thr Thr Ser Thr Arg Thr Thr Thr Pro
275 280 285

Phe Pro Thr Ile His Leu Arg Ser Ser Pro Ser Leu Pro Pro Ala Ser 290 295 300

Pro Cys Pro Ala Leu Ala Phe Trp Lys Arg Val Arg Ile Gly Leu Glu 305 310 315 320

Asp Ile Trp Asn Ser Leu Ser Ser Val Phe Thr Glu Met Gln Pro Ile 325 330 335

Asp Arg Asn Gln Arg 340

<210> 73

<211> 246

<212> PRT

<213> Homo sapiens

<400> 73

Met Ala Leu Leu Cys Leu Val Cys Leu Thr Ala Ala Leu Ala His 1 5 10 15

Gly Cys Leu His Cys His Ser Asn Phe Ser Lys Lys Phe Ser Phe Tyr 20 25 30

Arg His His Val Asn Phe Lys Ser Trp Trp Val Gly Asp Ile Pro Val

Ser Gly Ala Leu Leu Thr Asp Trp Ser Asp Asp Thr Met Lys Glu Leu 50 55 60

His Leu Ala Ile Pro Ala Lys Ile Thr Arg Glu Lys Leu Asp Gln Val 65 70 75 80

Ala Thr Ala Val Tyr Gln Met Met Asp Gln Leu Tyr Gln Gly Lys Met 85 90 95

Tyr Phe Pro Gly Tyr Phe Pro Asn Glu Leu Arg Asn Ile Phe Arg Glu
100 105 110

Gln Val His Leu Ile Gln Asn Ala Ile Ile Glu Ser Arg Ile Asp Cys 115 120 125

Gln His Arg Cys Gly Lys Gln Gly Ser Val Gln Ala Glu Gly Arg Ala 130 135 140

Gly Gly Ser Ser Gly Pro Trp Arg Leu Arg Gly Ala Leu Ala Ala Leu 145 150 155 160

Val Arg Val Ser Gly Ile Phe Gln Tyr Glu Thr Ile Ser Cys Asn Asn 165 170 175

Cys Thr Asp Ser His Val Ala Cys Phe Gly Tyr Asn Cys Glu Ser Ser 180 185 190

Ala Gln Trp Lys Ser Ala Val Gln Gly Leu Leu Asn Tyr Ile Asn Asn 195 200 205

Trp His Lys Gln Asp Thr Ser Met Ser Leu Val Ser Pro Ala Leu Arg 210 215 220

Cys Leu Glu Pro Pro His Leu Ala Asn Leu Thr Leu Glu Asp Ala Ala 225 230 235 240

Glu Cys Leu Lys Gln His 245

<210> 74

<211> 153

<212> PRT

<213> Homo sapiens

<400> 74

Met His Trp Leu Cys Val Ser Cys Ile Phe Thr Cys Leu Pro Gly Trp

1 10 15

Leu Pro Ser Ser Ser Gln Gly His Arg Glu Pro Leu Ala Leu Gly Leu 35 40 45

Pro Ser Ala Leu Pro Pro Ala His Arg Gln Arg Leu Arg Gly Ser Ala 50 55 60

Thr Cys Gln Ala Gln Gly Lys Gln Arg Arg Val Gly Gly Arg Thr Arg 65 70 75 80

Leu Leu Gly Arg Gln Glu Trp Gly Val Ala Ser His Pro Thr Gly Gly
85 90 95

Asp Gly Gly Met Pro Gly Ala Met Pro Glu Gln Gly Arg Gly Leu 100 105 110

Val Gln Pro Val Ala Val Ser Ser Arg Trp Asp Arg Gly His Ser Lys 115 120 125

Ala Lys Gly Val Gly Arg Ala Gly Gly Val Ser Leu Val Leu Ala Glu 130 135 140

Leu Pro Val Pro Thr Thr Ser Val Cys 145 150

<210> 75

<211> 458

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (69)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 75

Met Lys Val Trp Gly Leu Ala Ala Cys Phe Leu Leu Gln His His 1 5 10 15

Gly Met Pro Ala Gln Phe Thr Leu Pro Pro Ala Pro Arg Asp Glu Thr
20 25 30

Ser Pro Ala Asp Ala Val Cys Pro Gly Leu Gly Arg Asp Leu Cys Gly
35 40 45

Ser Ser Arg Cys Cys Leu Arg Pro Pro Ser Gln Pro Asp Trp Lys Glu
50 55 60

Pro Ser Gly Ala Xaa Cys Gly Pro Asp Arg Leu Arg Val Ala Gly Glu 65 70 75 80

Val His Arg Phe Arg Thr Ser Asp Val Ser Gln Ala Thr Leu Ala Ser 85 90 95

Val Ala Pro Val Phe Thr Val Thr Lys Phe Asp Lys Gln Gly Asn Val 100 105 110

Thr Ser Phe Glu Arg Lys Lys Thr Glu Leu Tyr Gln Glu Leu Gly Leu 115 120 125

Gln Ala Arg Asp Leu Arg Phe Gln His Val Met Ser Ile Thr Val Arg 130 135 140

Asn Asn Arg Ile Ile Met Arg Met Glu Tyr Leu Lys Ala Val Ile Thr 145 150 155 160

Pro Glu Cys Leu Leu Ile Leu Asp Tyr Arg Asn Leu Asn Leu Glu Gln
165 170 175

Trp Leu Phe Arg Glu Leu Pro Ser Gln Leu Ser Gly Glu Gly Gln Leu
180 185 190

Val Thr Tyr Pro Leu Pro Phe Glu Phe Arg Ala Ile Glu Ala Leu Leu

200 205 195 Gln Tyr Trp Ile Asn Thr Leu Gln Gly Lys Leu Ser Ile Leu Gln Pro Leu Ile Leu Glu Thr Leu Asp Ala Leu Val Asp Pro Lys His Ser Ser 230 Val Asp Arg Ser Lys Leu His Ile Leu Leu Gln Asn Gly Lys Ser Leu Ser Glu Leu Glu Thr Asp Ile Lys Ile Phe Lys Glu Ser Ile Leu Glu Ile Leu Asp Glu Glu Glu Leu Leu Glu Glu Leu Cys Val Ser Lys Trp 280 Ser Asp Pro Gln Val Phe Glu Lys Ser Ser Ala Gly Ile Asp His Ala 295 Glu Glu Met Glu Leu Leu Glu Asn Tyr Tyr Arg Leu Ala Asp Asp 310 315 Leu Ser Asn Ala Ala Arg Glu Leu Arg Val Leu Ile Asp Asp Ser Gln 325 Ser Ile Ile Phe Ile Asn Leu Asp Ser His Arg Asn Val Met Met Arg 345 Leu Asn Leu Gln Leu Thr Met Gly Thr Phe Ser Leu Ser Leu Phe Gly Leu Met Gly Val Ala Phe Gly Met Asn Leu Glu Ser Ser Leu Glu Glu 375 Asp His Arg Ile Phe Trp Leu Ile Thr Gly Ile Met Phe Met Gly Ser 390 Gly Leu Ile Trp Arg Arg Leu Leu Ser Phe Leu Gly Arg Gln Leu Glu Ala Pro Leu Pro Pro Met Met Ala Ser Leu Pro Lys Lys Thr Leu Leu Ala Asp Arg Ser Met Glu Leu Lys Asn Ser Leu Arg Leu Asp Gly Leu Gly Ser Gly Arg Ser Ile Leu Thr Asn Arg <210> 76 <211> 164 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (154)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 76

Met Arg Leu Leu Arg Arg Arg His Met Pro Leu Arg Leu Ala Met Val 1 5 10 15

Gly Cys Ala Phe Val Leu Phe Leu Phe Leu Leu His Arg Asp Val Ser 20 25 30

Ser Arg Glu Glu Ala Thr Glu Lys Pro Trp Leu Lys Ser Leu Val Ser 35 40 45

Arg Lys Asp His Val Leu Asp Leu Met Leu Glu Ala Met Asn Asn Leu 50 55 60

Arg Asp Ser Met Pro Lys Leu Gln Ile Arg Ala Pro Glu Ala Gln Gln 65 70 75 80

Thr Leu Phe Ser Ile Asn Gln Ser Cys Leu Pro Gly Phe Tyr Thr Pro 85 90 95 -

Ala Glu Leu Lys Pro Phe Trp Glu Arg Pro Pro Gln Asp Pro Asn Ala 100 105 110

Pro Gly Ala Asp Gly Lys Ala Phe Gln Lys Ser Lys Trp Thr Pro Leu 115 120 125

Glu Thr Gln Glu Lys Glu Glu Gly Tyr Lys Lys His Cys Phe Asn Ala 130 135 140

Phe Ala Ser Asp Arg Ile Ser Leu Gln Xaa Ser Leu Gly Pro Asp Thr 145 150 155 160

Arg Pro Pro Glu

<210> 77

<211> 90

<212> PRT

<213> Homo sapiens

<400> 77

Met Ala Leu Arg His Leu Ala Leu Leu Ala Gly Leu Leu Val Gly Val 1 5 10 15

Ala Ser Lys Ser Met Glu Asn Thr Ala Gln Leu Pro Glu Cys Cys Val $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$

Asp Val Val Gly Val Asn Ala Ser Cys Pro Gly Ala Ser Leu Cys Gly 35 40 45

Pro Gly Cys Tyr Arg Arg Trp Asn Ala Asp Gly Ser Ala Thr Ala Ser
50 55 60

Ala Val Gly Thr Glu Pro Ser Gln Pro Thr Thr Ala Pro Ser Val Glu 65 70 75 80

Ala Leu Leu Ala Arg Val Arg His Ser Pro

```
<211> 44
 <212> PRT
 <213> Homo sapiens
 <400> 78
 Met Gly Trp Leu Trp Leu Glu Leu Leu Gly Leu Ser Ile Glu Glu Thr
 Leu Val Trp Ala Phe Leu Asn Lys Phe Leu Asp Ser Ser Ala Ala Leu
 Leu Trp Arg Ile Leu Gly Lys Ser Asn Leu Ser Thr
                              40
 <210> 79
 <211> 47
 <212> PRT
 <213> Homo sapiens
 Met Glu Arg Pro Ala Ser Leu Trp Ala Ser Val Ser Ile Leu Phe Thr
 Ser Trp Gly Leu Ala Leu Pro Ser Leu Gln Val Ala Ser Leu Ser Asp
                                  25
 Ser Ser Pro His Pro Pro Leu Leu Gly Pro Ser Arg Pro Ile Arg
                              40
 <210> 80
 <211> 55
 <212> PRT
<213> Homo sapiens
 <400> 80
 Met Pro Arg Trp Leu Ser Leu Leu Ala Leu Thr Ser Leu Thr Gly Ile
Leu Ser Gly Thr Leu Gly Phe Ser Pro His Gly Trp Ser Ser Pro Arg
                                  25
 Arg His Leu Ser Pro Arg Pro Glu Cys Pro Ala Ala Ser Gln Thr Thr
 Cys Lys Ser Leu Gly Gln His
      50
 <210> 81
 <211> 52
 <212> PRT
 <213> Homo sapiens
 <400> 81
 Met Gly Pro Cys Arg Ala Ser Arg Cys Leu Ser Leu Leu Val Leu Phe
 Pro Pro Gly Val Ala Gly Arg Pro Ala Pro Gly Arg Leu His Pro Val
```

```
Pro Thr Gly Pro Leu Pro Arg Met Tyr Ser Ala Gly Ala Arg Gly Arg 35 40 45
```

His Gly Ala His 50

<210> 82

<211> 64

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 82

Met Ala Gly Arg Arg Leu Asn Leu Arg Trp Ala Leu Ser Val Leu Xaa 1 5 10 15

Val Leu Leu Met Ala Glu Thr Val Ser Gly Thr Arg Gly Ser Ser Thr 20 25 30

Gly Ala His Ile Ser Pro Gln Phe Pro Ala Ser Gly Val Asn Gln Thr 35 40 45

Pro Val Val Asp Val Thr Trp Ala Cys Met Cys Ser Met Trp Ser Leu 50 55 60

<210> 83

<211> 81

<212> PRT

<213> Homo sapiens

<400> 83

Met Ser Leu Thr Val Phe His Phe Leu Leu Leu Ala Leu Leu Pro Ile 1 5 10

Ser Leu Met Ser Thr Leu Gln Ser Ile Phe Arg Asn Ser Asp Thr Leu 20 25 30

Ile Ile Glu Ala Ala Asp Phe Val Pro Val Arg Phe Leu Asn Gln Trp 35 40 45

Phe Met Ile Pro Val Asp Ile Ser Ser Leu Ser Lys Leu Gly Val Ser 50 55 60

Lys Leu Phe Leu Leu Arg Ala Arg Gln Tyr Gln Ala Trp Gly Thr Ala 65 70 75 80

Ser

- 50

```
<211> 43
<212> PRT
<213> Homo sapiens
<400> 84
Met Arg Ser Asp Gly Phe Ile Arg Thr Phe Cys Phe Gly Ile Phe Leu
Ile Phe Leu Leu Leu Ser Leu Cys Lys Lys Cys Leu Leu Pro Pro Ala
Met Ile Leu Arg Pro Pro Ser His Val Glu Leu
<210> 85
<211> 63
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (50)
<223> Xaa equals any of the naturally occurring L-amino acids
 <220>
<221> SITE
 <222> (52)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 85
Met Glu Cys Gly Leu Pro Lys Phe Ala Gly Cys Leu Phe Met Ile Leu
 Cys Leu Trp Asn Cys Pro Glu Ala Met Glu Cys Glu Asp Gly Phe His
                                  25
 Cys Ser Ser Val Gly Leu Leu Val Phe Ala Ser Ile Phe Tyr Asn Lys
Lys Xaa Glu Xaa Cys Trp Ile Ile Gln Gly Tyr Ile Leu Ala Ser
 <210> 86
 <211> 76
 <212> PRT
 <213> Homo sapiens
 Met Leu Ile Pro Gly Phe Leu Leu Pro Val Val Thr Leu Leu Ser Thr
 Ala Ser Ile Thr Gly Ala Leu Gly Leu Asn Thr Ser Ala Ile Ser Pro
 Phe Val Ser Ser Met Asp Thr Val Asn Asn Gly Leu Ser Thr Pro Ala
 Leu Cys Gln Ser Gln Gly Val Gly Trp Gly Asp Thr Glu Glu Asn Ile
```

.55

Phe Leu Leu Asp Ala Cys Cys Ala Asn Ser Pro Leu 65 70 75

<210> 87

<211> 163

<212> PRT

<213> Homo sapiens

<400> 87

Met Gly Ser Thr Trp Gly Ser Pro Gly Trp Val Arg Leu Ala Leu Cys

1 5 10 15

Leu Thr Gly Leu Val Leu Ser Leu Tyr Ala Leu His Val Lys Ala Ala 20 25 30

Arg Ala Arg Asp Arg Asp Tyr Arg Ala Leu Cys Asp Val Gly Thr Ala.-35 40 45

Ile Ser Cys Ser Arg Val Phe Ser Ser Arg Trp Gly Arg Gly Phe Gly 50 55 60

Leu Val Glu His Val Leu Gly Gln Asp Ser Ile Leu Asn Gln Ser Asn 65 70 75 80

Ser Ile Phe Gly Cys Ile Phe Tyr Thr Leu Gln Leu Leu Gly Cys 85 90 95

Leu Arg Thr Arg Trp Ala Ser Val Leu Met Leu Leu Ser Ser Leu Val
100 105 110

Ser Leu Ala Gly Ser Val Tyr Leu Ala Trp Ile Leu Phe Phe Val Leu 115 120 125

Tyr Asp Phe Cys Ile Val Cys Ile Thr Thr Tyr Ala Ile Asn Val Ser 130 135 140

Leu Met Trp Leu Ser Phe Arg Lys Val Gln Glu Pro Gln Gly Lys Ala 145 150 155 160

Lys Arg His

<210> 88

<211> 53

<212> PRT

<213> Homo sapiens

<400> 88

Met Gln Pro Trp Ala Gly Leu Cys Pro Leu Leu Val Leu Trp Ile Ser

1 5 10 15

Gly His Leu His Cys Ile Ser Ala Leu Leu Gln Glu Arg Gly Val Gly
20 25 30

Val Ser Leu Ser Ser Arg Ser Asp Ala Cys Lys Ala Ala His Arg Ile 35 40 45

Gly Thr Ser Ser Ser

```
50
```

```
<210> 89
 <211> 422
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (9)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (19)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (37)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (277)
<223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (278)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 89
Met Ile Tyr Lys Met Asp Cys Leu Xaa Arg Val Glu Asn Phe Leu Glu
 Pro Leu Xaa Asn Trp Asn Glu Ala Trp Arg Glu Tyr Asp Lys Leu Glu
Tyr Asp Val Thr Xaa Thr Arg Asn Gln Met Gln Glu Gln Leu Asp His
 Leu Gly Glu Val Gln Thr Glu Ser Ala Gly Ile Gln Arg Ala Gln Ile
 Gln Lys Glu Leu Trp Arg Ile Gln Asp Val Met Glu Gly Leu Ser Lys
 His Lys Gln Gln Arg Gly Thr Thr Glu Ile Gly Met Ile Gly Ser Lys
 Pro Phe Ser Thr Val Lys Tyr Lys Asn Glu Gly Pro Asp Tyr Arg Leu
                                 105
 Tyr Lys Ser Glu Pro Glu Leu Thr Thr Val Ala Glu Val Asp Glu Ser
         115
 Asn Gly Glu Glu Lys Ser Glu Pro Val Ser Glu Ile Glu Thr Ser Val
                         135
```

Val Lys Gly Ser His Phe Pro Val Gly Val Val Pro Pro Arg Ala Lys
145 150 155 160

Ser Pro Thr Pro Glu Ser Ser Thr Ile Ala Ser Tyr Val Thr Leu Arg 165 170 175

Lys Thr Lys Lys Met Met Asp Leu Arg Thr Glu Arg Pro Arg Ser Ala 180 185 190

Val Glu Gln Leu Cys Leu Ala Glu Ser Thr Arg Pro Arg Met Thr Val 195 200 205

Glu Glu Gln Met Glu Arg Ile Arg Arg His Gln Gln Ala Cys Leu Arg 210 215 220

Glu Lys Lys Lys Gly Leu Asn Val Ile Gly Ala Ser Asp Gln Ser Pro 225 230 235 240

Leu Gln Ser Pro Ser Asn Leu Arg Asp Asn Pro Phe Arg Thr Thr Gln 245 250 255

Thr Arg Arg Arg Asp Asp Lys Glu Leu Asp Thr Ala Ile Arg Glu Asn 260 265 270

Asp Val Lys Pro Xaa Xaa Glu Thr Pro Ala Thr Glu Ile Val Gln Leu 275 280 285

Lys Glu Thr Glu Pro Gln Asn Val Asp Phe Ser Lys Glu Leu Lys Lys 290 295 300

Thr Glu Asn Ile Ser Tyr Glu Met Leu Phe Glu Pro Glu Pro Asn Gly 305 310 315 320

Val Asn Ser Val Glu Met Met Asp Lys Glu Arg Asn Lys Asp Lys Met 325 330 335

Pro Glu Asp Val Thr Phe Ser Pro Gln Asp Glu Thr Gln Thr Ala Asn 340 345 350

His Lys Pro Glu Glu His Pro Glu Glu Asn Thr Lys Asn Ser Val Asp 355 360 365

Glu Gln Glu Glu Thr Val Ile Ser Tyr Glu Ser Thr Pro Glu Val Ser 370 375 380

Arg Gly Asn Gln Thr Met Ala Val Lys Ser Leu Ser Pro Ser Pro Glu 385 390 395 400

Ser Ser Ala Ser Pro Val Pro Ser Thr Gln Pro Gln Leu Thr Glu Gly 405 410 415

Ser His Phe Met Cys Val 420

<210> 90

<211> 89

<212> PRT

<213> Homo sapiens

<400> 90

Met Ala Gly Ser Pro Thr Cys Leu Thr Leu Ile Tyr Ile Leu Trp Gln
1 5 10 15

Leu Thr Gly Ser Ala Ala Ser Gly Pro Val Lys Glu Leu Val Gly Ser 20 25 30

Val Gly Gly Ala Val Thr Phe Pro Leu Lys Ser Lys Val Lys Gln Val 35 40 45

Asp Ser Ile Val Trp Thr Phe Asn Thr Thr Pro Leu Val Thr Ile Gln 50 55 60

Pro Glu Gly Gly Thr Ile Ile Val Thr Gln Asn Arg Asn Arg Glu Arg 65 70 75 80

Val Asp Phe Pro Asp Gly Ala Thr Pro 85

<210> 91

<211> 110

<212> PRT

<213> Homo sapiens

<400> 91

Met Val Leu Leu Cys Leu Leu Leu Val Pro Leu Leu Leu Ser Leu Phe 1 5 10 15

Val Leu Gly Leu Phe Leu Trp Phe Leu Lys Arg Glu Arg Gln Glu Glu 20 25 30

Tyr Ile Glu Glu Lys Lys Arg Val Asp Ile Cys Arg Glu Thr Pro Asn 35 40 45

Ile Cys Pro His Ser Gly Glu Asn Thr Glu Tyr Asp Thr Ile Pro His 50 55 60

Thr Asn Arg Thr Ile Leu Lys Glu Asp Pro Ala Asn Thr Val Tyr Ser 65 70 75 80

Thr Val Glu Ile Pro Lys Lys Met Glu Asn Pro His Ser Leu Leu Thr 85 90 95

Met Pro Asp Thr Pro Arg Leu Phe Ala Tyr Glu Asn Val Ile 100 105 110

<210> 92

<211> 72

<212> PRT

<213> Homo sapiens

<400> 92

Met Lys Phe Val Pro Cys Leu Leu Leu Val Thr Leu Ser Cys Leu Gly

1 5 10 15

Thr Leu Gly Gln Ala Pro Arg Gln Lys Gln Gly Ser Thr Gly Glu Glu 20 25 30

Phe His Phe Gln Thr Gly Gly Arg Asp Ser Cys Thr Met Arg Pro Ser 35 40 45

```
Ser Leu Gly Gln Gly Ala Gly Glu Val Trp Leu Arg Val Arg Leu Pro
Gln His Arg Pro Asp Leu Leu Val
                     70
<210> 93
<211> 144
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (131)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (138)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 93
Met Val Leu Leu Val Met Gly Asn Val Ile Asn Trp Ser Leu Ala Ala
Tyr Gly Leu Ile Met Arg Pro Asn Asp Phe Ala Ser Tyr Leu Leu Ala
```

Ile Gly Ile Cys Asn Leu Leu Leu Tyr Phe Ala Phe Tyr Ile Ile Met

Lys Leu Arg Ser Gly Glu Arg Ile Lys Leu Ile Pro Leu Cys Ile 50 55 60

Val Cys Thr Ser Val Val Trp Gly Phe Ala Leu Phe Phe Phe Gln 65 70 75 80

Gly Leu Ser Thr Trp Gln Lys Thr Pro Ala Glu Ser Arg Glu His Asn 85 90 95

Arg Asp Cys Ile Leu Leu Asp Phe Phe Asp Asp His Asp Ile Trp His
100 105 110

Phe Leu Ser Ser Ile Ala Met Phe Gly Ser Phe Leu Val Leu Leu Thr 115 120 125

Leu Asp Xaa Asp Leu Asp Thr Val Gln Xaa Asp Lys Ile Tyr Val Phe 130 135 140

<210> 94

<211> 144

<212> PRT

<213> Homo sapiens

<220>

```
<221> SITE
```

<222> (131)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (138)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 94

Met Val Leu Leu Val Met Gly Asn Val Ile Asn Trp Ser Leu Ala Ala 1 5 10 15

Tyr Gly Leu Ile Met Arg Pro Asn Asp Phe Ala Ser Tyr Leu Leu Ala 20 25 30

Ile Gly Ile Cys Asn Leu Leu Leu Tyr Phe Ala Phe Tyr Ile Ile Met 35 40 45 .

Lys Leu Arg Ser Gly Glu Arg Ile Lys Leu Ile Pro Leu Leu Cys Ile 50 . 55 60

Val Cys Thr Ser Val Val Trp Gly Phe Ala Leu Phe Phe Phe Gln 65 70 75 80

Gly Leu Ser Thr Trp Gln Lys Thr Pro Ala Glu Ser Arg Glu His Asn 85 90 95

Arg Asp Cys Ile Leu Leu Asp Phe Phe Asp Asp His Asp Ile Trp His
100 105 110

Phe Leu Ser Ser Ile Ala Met Phe Gly Ser Phe Leu Val Leu Leu Thr 115 120 125

Leu Asp Xaa Asp Leu Asp Thr Val Gln Xaa Asp Lys Ile Tyr Val Phe 130 135 140

<210> 95

<211> 170

<212> PRT

<213> Homo sapiens

<400> 95

Met Ala Thr Ala Met Asp Trp Leu Pro Trp Ser Leu Leu Leu Phe Ser 1 5 10 15

Leu Met Cys Glu Thr Ser Ala Phe Tyr Val Pro Gly Val Ala Pro Ile 20 25 30

Asn Phe His Gln Asn Asp Pro Val Glu Ile Lys Ala Val Lys Leu Thr 35 40 45

Ser Ser Arg Thr Gln Leu Pro Tyr Glu Tyr Tyr Ser Leu Pro Phe Cys
50 55 60

Gln Pro Ser Lys Ile Thr Tyr Lys Ala Glu Asn Leu Gly Glu Val Leu 65 70 75 80

Arg Gly Asp Arg Ile Val Asn Thr Pro Phe Gln Val Leu Met Asn Ser 85 90 95

Glu Lys Lys Cys Glu Val Leu Cys Ser Gln Ser Asn Lys Pro Val Thr 100 105 110

Leu Thr Val Glu Gln Ser Arg Leu Val Ala Glu Arg Ile Thr Glu Asp 115 120 125

Tyr Tyr Val His Leu Ile Ala Asp Asn Leu Pro Val Ala Thr Arg Leu 130 135 140

Glu Leu Tyr Ser Asn Arg Asp Ser Asp Asp Lys Lys Glu Ser Asp 145 150 155 160

Ile Lys Trp Ala Ser Arg Trp Asp Thr Tyr 165 170

<210> 96

<211> 286

<212> PRT

<213> Homo sapiens

<400> 96

Met Ile Leu Ile Val Ile Phe Val Ala Met Leu Gly Met Leu Ser Pro 1 5 10 15

Ser Ser Arg Gly Ala Leu Met Thr Thr Ala Cys Phe Leu Phe Met Phe 20 25 30

Met Gly Val Phe Gly Gly Phe Ser Ala Gly Arg Leu Tyr Arg Thr Leu 35 40 45

Lys Gly His Arg Trp Lys Lys Gly Ala Phe Cys Thr Ala Thr Leu Tyr 50 55 60

Pro Gly Val Val Phe Gly Ile Cys Phe Val Leu Asn Cys Phe Ile Trp 65 70 75 80

Gly Lys His Ser Ser Gly Ala Val Pro Phe Pro Thr Met Val Ala Leu 85 90 95

Leu Cys Met Trp Phe Gly Ile Ser Leu Pro Leu Val Tyr Leu Gly Tyr 100 105 110

Tyr Phe Gly Phe Arg Lys Gln Pro`Tyr Asp Asn Pro Val Arg Thr Asn 115 120 125

Gln Ile Pro Arg Gln Ile Pro Glu Gln Arg Trp Tyr Met Asn Arg Phe 130 135 140

Glu Leu Phe Phe Ile Phe Ser Ala Ile Trp Glu Asn Gln Phe Tyr Tyr 165 170 175

Leu Phe Gly Phe Leu Phe Leu Val Phe Ile Ile Leu Val Val Ser Cys 180 185 190 Ser Gln Ile Ser Ile Val Met Val Tyr Phe Gln Leu Cys Ala Glu Asp 195 200 205

Tyr Arg Trp Trp Trp Arg Asn Phe Leu Val Ser Gly Gly Ser Ala Phe 210 215 220

Tyr Val Leu Val Tyr Ala Ile Phe Tyr Phe Val Asn Lys Leu Asp Ile 225 230 235 240

Val Glu Phe Ile Pro Ser Leu Leu Tyr Phe Gly Tyr Thr Ala Leu Met 245 250 255

Val Leu Ser Phe Trp Leu Leu Thr Gly Thr Ile Gly Phe Tyr Ala Ala 260 265 270

Tyr Met Phe Val Arg Lys Ile Tyr Ala Ala Val Lys Ile Asp 275 280 285

<210> 97

<211> 435

<212> PRT

<213> Homo sapiens

<400> 97

Met Ile Val Phe Gly Trp Ala Val Phe Leu Ala Ser Arg Ser Leu Gly
1 5 10 15

Gln Gly Leu Leu Thr Leu Glu Glu His Ile Ala His Phe Leu Gly
20 -25 30

Thr Gly Gly Ala Ala Thr Thr Met Gly Asn Ser Cys Ile Cys Arg Asp 35 40 45

Asp Ser Gly Thr Asp Asp Ser Val Asp Thr Gln Gln Gln Ala Glu
50 55 60

Asn Ser Ala Val Pro Thr Ala Asp Thr Arg Ser Gln Pro Arg Asp Pro 65 70 75 80

Val Arg Pro Pro Arg Arg Gly Arg Gly Pro His Glu Pro Arg Arg Lys 85 90 95

Lys Gln Asn Val Asp Gly Leu Val Leu Asp Thr Leu Ala Val Ile Arg 100 105 110

Thr Leu Val Asp Asn Asp Gln Glu Pro Pro Tyr Ser Met Ile Thr Leu 115 120 125

His Glu Met Ala Glu Thr Asp Glu Gly Trp Leu Asp Val Val Gln Ser 130 135 140

Thr Leu Leu Leu Asp Glu Cys Pro Leu Pro Thr Lys Asp Ala Leu Gln 165 170 175

Lys Leu Thr Glu Ile Leu Asn Leu Asn Gly Glu Val Ala Cys Gln Asp 180 185 190 Ser Ser His Pro Ala Lys His Arg Asn Thr Ser Ala Val Leu Gly Cys
195 200 205

Leu Ala Glu Lys Leu Ala Gly Pro Ala Ser Ile Gly Leu Leu Ser Pro 210 215 220

Gly Ile Leu Glu Tyr Leu Leu Gln Cys Leu Lys Leu Gln Ser His Pro 225 230 235 240

Thr Val Met Leu Phe Ala Leu Ile Ala Leu Glu Lys Phe Ala Gln Thr 245 250 255

Ser Glu Asn Lys Leu Thr Ile Ser Glu Ser Ser Ile Ser Asp Arg Leu 260 265 270

Val Thr Leu Glu Ser Trp Ala Asn Asp Pro Asp Tyr Leu Lys Arg Gln 275 280 285

Val Gly Phe Cys Ala Gln Trp Ser Leu Asp Asn Leu Phe Leu Lys Glu 290 295 300

Gly Arg Gln Leu Thr Tyr Glu Lys Val Asn Leu Ser Ser Ile Arg Ala 305 310 315 320

Met Leu Asn Ser Asn Asp Val Ser Glu Tyr Leu Lys Ile Ser Pro His 325 330 335

Gly Leu Glu Ala Arg Cys Asp Ala Ser Ser Phe Glu Ser Val Arg Cys 340 345 350

Thr Phe Cys Val Asp Ala Gly Val Trp Tyr Tyr Glu Val Thr Val Val 355 360 365

Thr Ser Gly Val Met Gln Ile Gly Trp Ala Thr Arg Asp Ser Lys Phe 370 375 380

Leu Asn His Glu Gly Tyr Gly Ile Gly Asp Asp Glu Tyr Ser Cys Ala 385 390 395 400

Tyr Asp Gly Cys Arg Gln Leu Ile Trp Tyr Asn Ala Arg Ser Lys Pro 405 410 415

His Ile His Pro Cys Trp Glu Arg Arg Arg Tyr Ser Arg Ile Ser Val 420 425 430

Arg Leu Glu 435

<210> 98

<211> 426

<212> PRT

<213> Homo sapiens

<400> 98

Met Ile Val Phe Gly Trp Ala Val Phe Leu Ala Ser Arg Ser Leu Gly
1 5 10 15

Gln Gly Leu Leu Thr Leu Glu Glu His Ile Ala His Phe Leu Gly
20 25 30

Thr Gly Gly Ala Ala Thr Thr Met Gly Asn Ser Cys Ile Cys Arg Asp

Asp Ser Gly Thr Asp Asp Ser Val Asp Thr Gln Gln Gln Gln Ala Glu 50 55 60

Asn Ser Ala Val Pro Thr Ala Asp Thr Arg Ser Gln Pro Arg Asp Pro 65 70 75 80

Val Arg Pro Pro Arg Arg Gly Arg Gly Pro His Glu Pro Arg Arg Lys 85 90 95

Lys Gln Asn Val Asp Gly Leu Val Leu Asp Thr Leu Ala Val Ile Arg 100 105 110

Thr Leu Val Asp Asn Asp Gln Glu Pro Tyr Ser Met Ile Thr Leu His
115 120 125

Glu Met Ala Glu Thr Asp Glu Gly Trp Leu Asp Val Val Gln Ser Leu 130 135 140

Leu Leu Leu Asp Glu Cys Pro Leu Pro Thr Lys Asp Ala Leu Gln Lys
165 170 175

Leu Thr Glu Ile Leu Asn Leu Asn Gly Glu Val Ala Cys Gln Asp Ser 180 185 190

Ser His Pro Ala Lys His Arg Asn Thr Ser Ala Val Leu Gly Cys Leu 195 200 205

Ala Glu Lys Leu Ala Gly Pro Ala Ser Ile Gly Leu Leu Ser Pro Gly 210 215 220

Ile Leu Glu Tyr Leu Leu Gln Cys Leu Lys Leu Gln Ser His Pro Thr 225 230 235 240

Val Met Leu Phe Ala Leu Ile Ala Leu Glu Lys Phe Ala Gln Thr Ser 245 250 255

Glu Asn Lys Leu Thr Ile Ser Glu Ser Ser Ile Ser Asp Arg Leu Val 260 265 270

Thr Leu Glu Ser Trp Ala Asn Asp Pro Asp Tyr Leu Lys Arg Gln Val 275 280 285

Gly Phe Cys Ala Gln Trp Ser Leu Asp Asn Leu Phe Leu Lys Glu Gly 290 295 300

Arg Gln Leu Thr Tyr Glu Lys Val Asn Leu Ser Ser Ile Arg Ala Met 305 310 315 320

Leu Asn Ser Asn Asp Val Ser Glu Tyr Leu Lys Ile Ser Pro His Gly 325 330 335

Leu Glu Ala Arg Cys Asp Ala Ser Ser Phe Glu Ser Val Arg Cys Thr 340 345 350

Phe Cys Val Asp Ala Gly Val Trp Tyr Tyr Glu Val Thr Val Val Thr 355 360 365

Ser Gly Val Met Gln Ile Gly Trp Val Thr Arg Asp Ser Lys Phe Leu 370 375 380

Asn His Glu Gly Tyr Gly Ile Gly Asp Asp Glu Tyr Ser Cys Ala Tyr 385 390 395 400

Asp Gly Cys Arg Gln Leu Ile Trp Tyr Asn Ala Arg Ser Ser Leu Thr \$405\$ \$410\$ \$415

Tyr Thr His Ala Gly Lys Lys Glu Ile Gln 420 425

<210> 99

<211> 191

<212> PRT

<213> Homo sapiens

<400> 99

Met Cys Cys Ala Leu Phe Leu Leu Ile Leu Leu Thr Gly Val Leu Cys 1 5 10 15

His Arg Phe His Gly Leu Trp Tyr Met Lys Met Met Trp Ala Trp Leu 20 25 30

Gln Ala Lys Arg Lys Pro Arg Lys Ala Pro Ser Arg Asn Ile Cys Tyr 35 40 45

Asp Ala Phe Val Ser Tyr Ser Glu Arg Asp Ala Tyr Trp Val Glu Asn 50 55 60

Leu Met Val Gln Glu Leu Glu Asn Phe Asn Pro Pro Phe Lys Leu Cys 65 70 75 80

Leu His Lys Arg Asp Phe Ile Pro Gly Lys Trp Ile Ile Asp Asn Ile 85 90 95

Ile Asp Ser Ile Glu Lys Ser His Lys Thr Val Phe Val Leu Ser Glu
100 105 110

Asn Phe Val Lys Ser Glu Trp Cys Lys Tyr.Glu Leu Asp Phe Ser His 115 120 125

Phe Arg Leu Phe Asp Glu Asn Asn Asp Ala Ala Ile Leu Ile Leu Leu 130 135 140

Lys Ile Met Asn Thr Lys Thr Tyr Leu Glu Trp Pro Met Asp Glu Ala 165 170 175

Gln Arg Glu Gly Phe Trp Val Asn Leu Arg Ala Ala Ile Lys Ser 180 185 190

<210> 100

<211> 163

```
<212> PRT
```

<213> Homo sapiens

<400> 100

Met Gly Ser Thr Trp Gly Ser Pro Gly Trp Val Arg Leu Ala Leu Cys

1 10 15

Leu Thr Gly Leu Val Leu Ser Leu Tyr Ala Leu His Val Lys Ala Ala 20 25 30

Arg Ala Arg Asp Arg Asp Tyr Arg Ala Leu Cys Asp Val Gly Thr Ala 35 40 45

Ile Ser Cys Ser Arg Val Phe Ser Ser Arg Trp Gly Arg Gly Phe Gly
50 55 60

Leu Val Glu His Val Leu Gly Gln Asp Ser Ile Leu Asn Gln Ser Asn 65 70 75 .80.-

Ser Ile Phe Gly Cys Ile Phe Tyr Thr Leu Gln Leu Leu Gly Cys
85 90 95

Leu Arg Thr Arg Trp Ala Ser Val Leu Met Leu Leu Ser Ser Leu Val

Ser Leu Ala Gly Ser Val Tyr Leu Ala Trp Ile Leu Phe Phe Val Leu 115 120 125

Tyr Asp Phe Cys Ile Val Cys Ile Thr Thr Tyr Ala Ile Asn Val Ser 130 135 140

Leu Met Trp Leu Ser Phe Arg Lys Val Gln Glu Pro Gln Gly Lys Ala 145 150 155 160

Lys Arg His

<210> 101

<211> 92

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 101

Met Gly Ser Thr Trp Gly Ser Pro Gly Trp Val Arg Leu Ala Leu Cys
1 10 15

Leu Thr Gly Leu Val Leu Ser Leu Tyr Ala Leu His Val Lys Ala Ala
20 25 30

Arg Ala Arg Asp Arg Asp Tyr Arg Ala Leu Cys Asp Val Gly Thr Ala

35 40 45

Ile Ser Cys Ser Arg Val Phe Ser Ser Arg Leu Pro Xaa Asp Thr Leu 50 55 60

Gly Leu Cys Xaa Asp Ala Ala Glu Leu Pro Gly Val Ser Arg Trp Phe 65 70 75 80

Cys Leu Pro Gly Leu Asp Pro Val Leu Arg Ala Leu 85 90

<210> 102

<211> 52

<212> PRT

<213> Homo sapiens

<400> 102

Met Tyr Leu Lys Cys Ala Ile Leu Leu Ser Glu Val Cys Pro Val 1 5 10 15

Phe Cys Tyr Asn Ser Phe Ser Val Arg Leu Gln Cys Gln Gln Leu Leu 20 25 30 .

Pro His Ser Cys Gln Leu Lys His Lys Cys Tyr Arg Leu Ser Phe Leu 35 40 45

Lys Lys Lys 50

<210> 103

<211> 323

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 103

Ser Pro Thr Ala Arg Arg Pfo Leu Ala Gly Ala Leu Pro Gly Arg Leu
1 10 15

Ala Trp His Leu Leu Phe His His Arg Asn Leu Glu Arg Gly Ile Arg 20 25 30

Arg Pro Asp Trp Arg Ala Arg Leu Glu Pro Ala Gly Ala Arg Gly Trp 35 40 45

Gln Ala Ala Leu Gly Ser Arg Arg Pro Trp Ala Arg Asn Ile Gln Arg 50 55 60

Ala Gly Ala Trp Glu Leu Arg Phe Ser Xaa Arg Ala Arg Cys Glu Pro 65 70 75 80 Pro Ala Val Gly Xaa Ala Cys Thr Arg Leu Cys Arg Pro Arg Ser Ala 85 90 95

Pro Ser Arg Cys Gly Pro Gly Leu Arg Pro Cys Ala Pro Leu Glu Ala 100 105 110

Glu Cys Glu Ala Pro Pro Val Cys Arg Ala Gly Cys Ser Pro Glu His 115 120 125

Gly Phe Cys Glu Gln Pro Gly Glu Cys Arg Cys Leu Glu Gly Trp Thr 130 135 140

Gly Pro Leu Cys Thr Val Pro Val Ser Thr Ser Ser Cys Leu Ser Pro 145 150 155 160

Arg Gly Pro Ser Ser Ala Thr Thr Gly Cys Leu Val Pro Gly Pro Gly 165 170 175 -

Pro Cys Asp Gly Asn Pro Cys Ala Asn Gly Gly Ser Cys Ser Glu Thr 180 185 190

Pro Arg Ser Phe Glu Cys Thr Cys Pro Arg Gly Phe Tyr Gly Leu Arg 195 200 205

Cys Glu Val Ser Gly Val Thr Cys Ala Asp Gly Pro Cys Phe Asn Gly 210 215 220

Gly Leu Cys Val Gly Gly Ala Asp Pro Asp Ser Ala Tyr Ile Cys His 225 230 235 240

Cys Pro Pro Gly Phe Gln Gly Ser Asn Cys Glu Lys Arg Val Asp Arg
245 250 255

Cys Ser Leu Gln Pro Cys Arg Asn Gly Gly Leu Cys Leu Asp Leu Gly 260 265 270

His Ala Leu Arg Cys Arg Cys Arg Ala Ala Ser Arg Val Leu Ala Ala 275 280 285

Ser Thr Thr Trp Thr Thr Ala Arg Ala Ala Pro Ala Leu Thr Ala Ala 290 295 300

Arg Val Trp Arg Ala Ala Ala Arg Thr Ala Ala Pro Ala Arg Trp Ala 305 310 315

Ser Ala Ala

<210> 104

<211> 44

<212> PRT

<213> Homo sapiens

<400> 104

Ser Pro Thr Ala Arg Arg Pro Leu Ala Gly Ala Leu Pro Gly Arg Leu 1 5 10 15

Ala Trp His Leu Leu Phe His His Arg Asn Leu Glu Arg Gly Ile Arg 20 25 30

```
Arg Pro Asp Trp Arg Ala Arg Leu Glu Pro Ala Gly
                              40
 <210> 105
 <211> 42
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (30)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (41)
 <223> Xaa equals any of the naturally occurring L-amino acids
 Ala Arg Gly Trp Gln Ala Ala Leu Gly Ser Arg Arg Pro Trp Ala Arg
                   5
 Asn Ile Gln Arg Ala Gly Ala Trp Glu Leu Arg Phe Ser Xaa Arg Ala
                                  25
 Arg Cys Glu Pro Pro Ala Val Gly Xaa Ala
<210> 106
 <211> 44
 <212> PRT
 <213> Homo sapiens
 <400> 106
 Cys Thr Arg Leu Cys Arg Pro Arg Ser Ala Pro Ser Arg Cys Gly Pro
. Gly Leu Arg Pro Cys Ala Pro Leu Glu Ala Glu Cys Glu Ala Pro Pro
                                  25
 Val Cys Arg Ala Gly Cys Ser Pro Glu His Gly Phe
 <210> 107
 <211> 44
 <212> PRT
 <213> Homo sapiens
 <400> 107
 Cys Glu Gln Pro Gly Glu Cys Arg Cys Leu Glu Gly Trp Thr Gly Pro
 Leu Cys Thr Val Pro Val Ser Thr Ser Ser Cys Leu Ser Pro Arg Gly
              20
 Pro Ser Ser Ala Thr Thr Gly Cys Leu Val Pro Gly
```

```
<210> 108
 <211> 44
 <212> PRT
 <213> Homo sapiens
 <400> 108
 Pro Gly Pro Cys Asp Gly Asn Pro Cys Ala Asn Gly Gly Ser Cys Ser
 Glu Thr Pro Arg Ser Phe Glu Cys Thr Cys Pro Arg Gly Phe Tyr Gly
 Leu Arg Cys Glu Val Ser Gly Val Thr Cys Ala Asp
 <210> 109
 <211> 44
 <212> PRT
 <213> Homo sapiens
 <400> 109
 Gly Pro Cys Phe Asn Gly Gly Leu Cys Val Gly Gly Ala Asp Pro Asp
 Ser Ala Tyr Ile Cys His Cys Pro Pro Gly Phe Gln Gly Ser Asn Cys
 Glu Lys Arg Val Asp Arg Cys Ser Leu Gln Pro Cys
 <210> 110
 <211> 42
 <212> PRT
 <213> Homo sapiens
 <400> 110
. Arg Asn Gly Gly Leu Cys Leu Asp Leu Gly His Ala Leu Arg Cys Arg
 Cys Arg Ala Ala Ser Arg Val Leu Ala Ala Ser Thr Thr Trp Thr Thr
                                  25
 Ala Arg Ala Ala Pró Ala Leu Thr Ala Ala
 <210> 111
 <211> 19
 <212> PRT
 <213> Homo sapiens
 Arg Val Trp Arg Ala Ala Ala Arg Thr Ala Ala Pro Ala Arg Trp Ala
   1
                                       10
 Ser Ala Ala
```

```
<210> 112
 <211> 29
 <212> PRT
 <213> Homo sapiens
 <400> 112
 Lys Gln Ser Ser Leu Pro Cys Cys Arg Glu Pro Tyr Phe Leu Pro
 Leu Gln Leu Ser His Leu Leu Ser Gly Leu Pro Ala
 <210> 113
 <211> 21
 <212> PRT
 <213> Homo sapiens
 <400> 113
 Leu Val Pro Leu Val Phe Ser Leu Leu Val Gln Ser Cys Lys Gln Val
 Tyr Arg Ser Ile Ala
 <210> 114
 <211> 272
 <212> PRT
 <213> Homo sapiens
 <400> 114
 Met Val Val Cys Gln Gly Glu Val Arg Ser Val Gly Val Phe His Leu
 Ser Pro Ser Glu Glu Ala Asp Glu Lys Gly Ala Gln Gly Leu Glu Gly
. Phe Pro Thr Met Phe Pro Gly Leu Leu Cys Phe Leu Ile Pro Ser
 Gly Pro Gly Ser Arg Leu Gly Arg Phe Gly Cys Gly Ser Gly Gly Gly
 Phe Gly Phe Ser Gln Leu Phe His Arg Val Leu Ser Gln Leu Cys Cys
 Phe Cys Glu Phe His Cys Gly Leu Gly Pro Gln Arg Trp Arg Pro Ser
                  85
 Leu Arg Leu Leu Val Gly Leu Trp Ala Ala Leu Glu Ala Gly Ser His
                                 105
 Leu Leu His Met Gly Leu Gly Ser Ser Leu Pro Ala His Gly Trp Pro
         115
                             120
                                                 125
 Lys His Arg Gly Pro Leu Ala Arg Met Val Lys Ala Pro Gln Leu Leu
     130
                         135
                                             140
```

His Ala Gly Leu Pro Pro Val Leu Thr Pro Val Gly Leu Val Cys Val
165 170 175

Ala Ala Val Asp Ala Lys Pro Asp Phe Ser Ser Thr Leu Pro Gln Ala 180 185 190

Ala Gly Thr His Ser Ala Gly Ile Ser Pro Ser Ser Leu Glu Met Glu
195 200 205

Phe Leu Pro Ser Ala Ser Leu Leu Leu Pro Arg Gly Leu Thr Gln Ser 210 215 220

Pro Gln Ala Gly Gln Gly His Gln Gln Glu Ala Gly Asp Glu Leu His 225 230 235 240

Gly Asp Thr Pro Ile Asn Leu Leu Ala Thr Leu His Gln Glu Arg Glu 245 250 255

His Lys Trp Asp Glu Ser Pro Phe Lys Gly Cys Cys Thr Lys Ala Leu 260 265 270

<210> 115

<211> 69

<212> PRT

<213> Homo sapiens

<400> 115

Leu Leu Ser Ser Pro Phe Asp Cys Thr Gln Gly Ser Gly Ala Trp Ala 1 5 10 15

Leu Gly Gly Tyr Gln Gln Leu Leu Ala Val Pro Met Ser Ser Leu Gln 20 25 30

. Leu Cys Cys Val Ser Leu Leu Pro Asn Leu Ser Asp Cys Glu Arg Thr \$35\$ 40 45

Leu Cys Leu Ser His Gly Gln Pro Leu Ala Gly Pro Leu Ile Cys Pro 50 55 60

Pro Ser Ile Val Trp 65

<210> 116

<211> 51

<212> PRT

<213> Homo sapiens

<400> 116

Gly Cys Arg Asn Ser Ala Arg Ala Arg Ala Asp Ser Gln Ser Arg Glu
1 10 15

Gln Arg Gly Lys Met Phe Thr Leu His Ala Gln Ser Val Leu Pro Val 20 25 30

```
Pro His Pro Met Trp Pro Asn Ser Trp Leu Asp Phe Thr Leu Asn Trp
                             40
Tyr Phe Phe
  50
<210> 117
<211> 59
<212> PRT
<213> Homo sapiens
<400> 117
Leu Pro Ser Ser Pro Ala Pro Thr Asp Ser Ser Pro Leu Pro Leu Ile
Val Leu Lys Val Leu Gly Pro Gly Pro Trp Val Gly Thr Asn Ser Cys.
                                 25
Ser Leu Phe Pro Cys Pro Leu Ser Ser Phe Ala Val Phe Leu Cys Tyr
                             40
Leu Ile Ser Val Thr Val Lys Gly His Cys Val
    50
<210> 118
<211> 65
<212> PRT
<213> Homo sapiens
<400> 118
Ala Ala Gly Ile Arg His Glu Leu Val Pro Thr Leu Arg Ala Gly Asn
Ser Gly Gly Lys Cys Leu His Ser Met His Asn Leu Cys Phe Gln Ser
Leu Thr Leu Cys Gly Pro Ile Ala Gly Trp Ile Ser His Leu Ile Gly
         35
Ile Phe Phe Cys Leu Leu Pro Leu Pro Pro Leu Thr Pro Leu Leu Ser
                         55
Leu
 65
<210> 119
<211> 24
<212> PRT
<213> Homo sapiens
<400> 119
Ser Phe Pro Val Gln Val Leu Glu Val Ser Gly Arg Arg Val Leu Pro
                  5
Ala Gly Ser Phe Glu Ser His Gln
```

```
<210> 120
<211> 49
<212> PRT
<213> Homo sapiens
<400> 120
Asp Val Leu Cys Pro Val Tyr Asp Leu Asp Asn Asn Val Ala Phe Ile
Gly Met Tyr Gln Thr Met Thr Lys Lys Ala Ala Ile Thr Val Gln Arg
Lys Asp Phe Pro Ser Asn Ser Phe Tyr Val Val Val Val Lys Thr
                             40
Glu
<210> 121
<211> 44
<212> PRT
<213> Homo sapiens
<400> 121
Asp Gln Ala Cys Gly Gly Ser Leu Pro Phe Tyr Pro Phe Ala Glu Asp
Glu Pro Val Asp Gln Gly His Arg Gln Lys Thr Leu Ser Val Leu Val
Ser Gln Ala Val Thr Ser Glu Ala Tyr Val Ser Gly
<210> 122
<211> 143
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (14)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (90)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 122
Ser Ser Thr Arg Ser Gly Thr Arg Thr Ser Thr Xaa Ala Xaa Thr Val
                  5
                                     10
Pro Thr Pro Ala Trp Pro Leu Ser Ser Ser Leu Cys Trp Ala Trp
```

25

30

```
Ser Leu Ala Lys Gly Thr Arg Arg Ser Gly Ser Ser Ser Pro Ser Phe
35 40 45
```

Thr Ser Ser Pro Pro Cys Ser Ser Ala Arg Ser Ser Ile Thr Trp Ala
50 55 60

Gly Gly Asn Trp Thr Arg Gly Ser Ser Ala Ala Ser Ser Thr Cys Ser 65 70 75 80

Thr Gln Thr Ala Ser Gly Ser Ala Ala Xaa Pro Leu Tyr Val Asp Arg 85 90 95

Met Val Leu Leu Val Met Gly Asn Val Ile Asn Trp Ser Leu Ala Ala 100 105 110

Tyr Gly Leu Ile Met Arg Pro Asn Asp Phe Ala Ser Tyr Leu Leu Ala 115 120 125

Ile Gly Ile Cys Asn Leu Leu Leu Tyr Phe Ala Phe Tyr Ile Ile 130 135 140

<210> 123

<211> 46

<212> PRT

<213> Homo sapiens

<220>

ļ.ib

ndin H

Ī.Š.

į.

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 123

. Ser Ser Thr Arg Ser Gly Thr Arg Thr Ser Thr Xaa Ala Xaa Thr Val 1 5 10 15

Pro Thr Pro Ala Trp Pro Leu Ser Ser Ser Ser Leu Cys Trp Ala Trp 20 25 30

Ser Leu Ala Lys Gly Thr Arg Arg Ser Gly Ser Ser Ser Pro 35 40 45

<210> 124

<211> 46

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

(222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 124

Ser Phe Thr Ser Ser Pro Pro Cys Ser Ser Ala Arg Ser Ser Ile Thr 5 10 Trp Ala Gly Gly Asn Trp Thr Arg Gly Ser Ser Ala Ala Ser Ser Thr Cys Ser Thr Gln Thr Ala Ser Gly Ser Ala Ala Xaa Pro Leu <210> 125 <211> 51 <212> PRT <213> Homo sapiens <400> 125 Tyr Val Asp Arg Met Val Leu Leu Val Met Gly Asn Val Ile Asn Trp Ser Leu Ala Ala Tyr Gly Leu Ile Met Arg Pro Asn Asp Phe Ala Ser Tyr Leu Leu Ala Ile Gly Ile Cys Asn Leu Leu Tyr Phe Ala Phe 40 Tyr Ile Ile 50 <210> 126 <211> 37 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (9) <223> Xaa equals any of the naturally occurring L-amino acids <400> 126 . Glu Gly Gly Ser Ser Arg Ala Arg Xaa Ser Thr Ser Arg Arg Leu Gly Val Cys Ser Leu Phe Leu Leu Pro Gly Ser Thr Glu Gly Asn Gly Asp Leu Ser Glu Glu Lys 35 <210> 127 <211> 34 <212> PRT <213> Homo sapiens <400> 127 Ala Ser Leu Leu Ser Pro Gln Leu His Ser Ala Cys Ile Leu Ala Phe Ser Trp Arg Glu Ser Pro Ser Arg Ser Gly Thr Pro Ala Asp Leu Leu

25

```
Cys Pro
```

```
<210> 128
```

<211> 141

<212> PRT

<213> Homo sapiens

<400> 128

Leu Leu Cys Cys Gln Leu Leu Gly Ser Pro Val Pro Ser Gly Gly Asp 1 5 - 10 15

Leu Pro Ala Ser Arg Ala Trp Ala Arg Val Arg Leu Pro Gly Gly Pro
20 25 30

Val Thr Cys Met Phe Gly His Thr Gly Ser Val Pro Ser Ala Leu Met . 35 40 45

Leu Leu Trp Val Leu Pro Met Phe Cys Cys His Asp Arg His Phe Pro 50 55 60

Gly Cys Pro Met Trp His Leu Trp Val Pro Arg Val Ala Ser Val Gly 65 70 75 80

Ala Pro Cys Gly Val Ser Gly Cys Pro Val Trp Arg Leu Trp Val Pro 85 90 95

Arg Val Thr Ser Val Gly Ala Pro Cys Gly Ile Cys Ala Ala Met Ser 100 105 110

Gly Val Gln Ser Leu Asn Ser Lys Lys Gly Asp Ala Gly Ser Gln Val

Thr Ser Thr Tyr Asn Ser Asp Ser Cys Asp Lys Pro Ser 130 135 140

<210> 129

. <211> 38

<212> PRT

<213> Homo sapiens

<400> 129

Leu Leu Cys Cys Gln Leu Leu Gly Ser Pro Val Pro Ser Gly Gly Asp 1 5 10 15

Leu Pro Ala Ser Arg Ala Trp Ala Arg Val Arg Leu Pro Gly Gly Pro 20 25 30

Val Thr Cys Met Phe Gly

<210> 130

<211> 37

<212> PRT

<213> Homo sapiens

<400> 130

<221> SITE

```
His Thr Gly Ser Val Pro Ser Ala Leu Met Leu Leu Trp Val Leu Pro
 Met Phe Cys Cys His Asp Arg His Phe Pro Gly Cys Pro Met Trp His
 Leu Trp Val Pro Arg
         35
 <210> 131
 <211> 37
 <212> PRT
 <213> Homo sapiens
 <400> 131
 Val Ala Ser Val Gly Ala Pro Cys Gly Val Ser Gly Cys Pro Val Trp
 Arg Leu Trp Val Pro Arg Val Thr Ser Val Gly Ala Pro Cys Gly Ile
 Cys Ala Ala Met Ser
          35
 <210> 132
 <211> 29
 <212> PRT
 <213> Homo sapiens
 <400> 132
 Gly Val Gln Ser Leu Asn Ser Lys Lys Gly Asp Ala Gly Ser Gln Val
 Thr Ser Thr Tyr Asn Ser Asp Ser Cys Asp Lys Pro Ser
                                  25
              20
 <210> 133
<211> 292
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (14)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (239)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (247)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
```

```
<222> (249)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (258)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (265)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (282)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221'> SITE
<222> (290)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 133
Leu Ser Phe Gly Pro Ser Gly Arg Thr Leu Pro Thr Thr Xaa Arg Arg
Met Thr Leu Lys Thr Pro Trp Arg Ser Leu Gly Gly Ser Trp Cys Thr
Ala Thr Ser Ser Gly Pro Pro Gln Tyr Pro Met Ile Leu Ser Ser Leu
Leu Gly Ser Gly Ile Gln Leu Phe Cys Met Ile Leu Ile Val Ile Phe
Val Ala Met Leu Gly Met Leu Ser Pro Ser Ser Arg Gly Ala Leu Met
Thr Thr Ala Cys Phe Leu Phe Met Phe Met Gly Val Phe Gly Gly Phe
                 85
Ser Ala Gly Arg Leu Tyr Arg Thr Leu Lys Gly His Arg Trp Lys Lys
Gly Ala Phe Cys Thr Ala Thr Leu Tyr Pro Gly Val Val Phe Gly Ile
        115
                            120
Cys Phe Val Leu Asn Cys Phe Ile Trp Gly Lys His Ser Ser Gly Ala
Val Pro Phe Pro Thr Met Val Ala Leu Leu Cys Met Trp Phe Gly Ile
                                        155
145
                    150
Ser Leu Pro Leu Val Tyr Leu Gly Tyr Tyr Phe Gly Phe Arg Lys Gln
Pro Tyr Asp Asn Pro Val Arg Thr Asn Gln Ile Pro Arg Gln Ile Pro
            180
                                185
                                                     190
```

Glu Gln Arg Trp Tyr Met Asn Arg Phe Val Gly Ile Leu Met Ala Gly

195

205

Ile Leu Pro Phe Gly Ala Met Phe Ile Glu Leu Phe Phe Ile Phe Ser 210 215 220

Ala Ile Trp Glu Asn Gln Phe Tyr Tyr Leu Phe Gly Phe Leu Xaa Leu 225 230 235 240

Gly Phe Ile Ile Leu Val Xaa Ser Xaa Ser Gln Ile Ser Ile Val Met
245 250 255

Val Xaa Phe Gln Leu Cys Ala Glu Xaa Leu Pro Leu Val Val Glu Lys
260 - 265 270

Phe Pro Ser Leu Arg Gly Leu Cys Ile Xaa Arg Pro Gly Leu Cys His 275 280 285

Leu Xaa Phe Arg 290

<210> 134

<211> 45

<212> PRT

<213> Homo sapiens

<220>

ŀå

22

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 134

Leu Ser Phe Gly Pro Ser Gly Arg Thr Leu Pro Thr Thr Xaa Arg Arg

1 5 10 15

Met Thr Leu Lys Thr Pro Trp Arg Ser Leu Gly Gly Ser Trp Cys Thr
20 25 30

Ala Thr Ser Ser Gly Pro Pro Gln Tyr Pro Met Ile Leu 35 40 45

<210> 135

<211> 47

<212> PRT

<213> Homo sapiens

<400> 135

Ser Ser Leu Leu Gly Ser Gly Ile Gln Leu Phe Cys Met Ile Leu Ile 1 5 10 15

Val Ile Phe Val Ala Met Leu Gly Met Leu Ser Pro Ser Ser Arg Gly 20 25 30

Ala Leu Met Thr Thr Ala Cys Phe Leu Phe Met Phe Met Gly Val\$35\$

<210> 136

<211> 47

<212> PRT

<222> (13)

```
<213> Homo sapiens
<400> 136
Phe Gly Gly Phe Ser Ala Gly Arg Leu Tyr Arg Thr Leu Lys Gly His
Arg Trp Lys Lys Gly Ala Phe Cys Thr Ala Thr Leu Tyr Pro Gly Val
                                 25
Val Phe Gly Ile Cys Phe Val Leu Asn Cys Phe Ile Trp Gly Lys
<210> 137
<211> 46
<212> PRT
<213> Homo sapiens
<400> 137
His Ser Ser Gly Ala Val Pro Phe Pro Thr Met Val Ala Leu Leu Cys
Met Trp Phe Gly Ile Ser Leu Pro Leu Val Tyr Leu Gly Tyr Tyr Phe
Gly Phe Arg Lys Gln Pro Tyr Asp Asn Pro Val Arg Thr Asn
<210> 138
<211> 49
<212> PRT
<213> Homo sapiens
<400> 138
Gln Ile Pro Arg Gln Ile Pro Glu Gln Arg Trp Tyr Met Asn Arg Phe
                  5
                                     10
Val Gly Ile Leu Met Ala Gly Ile Leu Pro Phe Gly Ala Met Phe Ile
Glu Leu Phe Phe Ile Phe Ser Ala Ile Trp Glu Asn Gln Phe Tyr Tyr
Leu
<210> 139
<211> 58
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
```

```
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (24)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (31)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (48)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (56)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 139
Phe Gly Phe Leu Xaa Leu Gly Phe Ile Ile Leu Val Xaa Ser Xaa Ser
Gln Ile Ser Ile Val Met Val Xaa Phe Gln Leu Cys Ala Glu Xaa Leu
             20
Pro Leu Val Val Glu Lys Phe Pro Ser Leu Arg Gly Leu Cys Ile Xaa
Arg Pro Gly Leu Cys His Leu Xaa Phe Arg
     50
<210> 140
<211> 276
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (223)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (231)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (233)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (242)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (249)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (266)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (274)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 140
Met Thr Leu Lys Thr Pro Trp Arg Ser Leu Gly Gly Ser Trp Cys Thr
Ala Thr Ser Ser Gly Pro Pro Gln Tyr Pro Met Ile Leu Ser Ser Leu
                                 25
Leu Gly Ser Gly Ile Gln Leu Phe Cys Met Ile Leu Ile Val Ile Phe
Val Ala Met Leu Gly Met Leu Ser Pro Ser Ser Arg Gly Ala Leu Met
Thr Thr Ala Cys Phe Leu Phe Met Phe Met Gly Val Phe Gly Gly Phe
Ser Ala Gly Arg Leu Tyr Arg Thr Leu Lys Gly His Arg Trp Lys Lys
Gly Ala Phe Cys Thr Ala Thr Leu Tyr Pro Gly Val Val Phe Gly Ile
            1.00
Cys Phe Val Leu Asn Cys Phe Ile Trp Gly Lys His Ser Ser Gly Ala
                             120
Val Pro Phe Pro Thr Met Val Ala Leu Leu Cys Met Trp Phe Gly Ile
                         135
    130
Ser Leu Pro Leu Val Tyr Leu Gly Tyr Tyr Phe Gly Phe Arg Lys Gln
                    150
Pro Tyr Asp Asn Pro Val Arg Thr Asn Gln Ile Pro Arg Gln Ile Pro
                165
                                     170
Glu Gln Arg Trp Tyr Met Asn Arg Phe Val Gly Ile Leu Met Ala Gly
                                 185
Ile Leu Pro Phe Gly Ala Met Phe Ile Glu Leu Phe Phe Ile Phe Ser
                                                 205
Ala Ile Trp Glu Asn Gln Phe Tyr Tyr Leu Phe Gly Phe Leu Xaa Leu
```

```
215
                                            220
   210
Gly Phe Ile Ile Leu Val Xaa Ser Xaa Ser Gln Ile Ser Ile Val Met
225
                   230
                            235
Val Xaa Phe Gln Leu Cys Ala Glu Xaa Leu Pro Leu Val Val Glu Lys
                                    250
                245
Phe Pro Ser Leu Arg Gly Leu Cys Ile Xaa Arg Pro Gly Leu Cys His
                                265
Leu Xaa Phe Arg
       275
<210> 141
<211> 46
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 141
Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu His Gly Ser Asn Asp
Pro Val Gly Leu Gln Arg Lys Gly Gly Xaa Glu Gly Arg Arg Gln Gly
                                 25
Leu Pro His Trp Pro Pro Ser Gln Pro Gln Glu Pro Ser Pro
                             40
<210> 142
<211> 11
<212> PRT
<213> Homo sapiens
<400> 142
Gln Glu Phe Gly Thr Arg Arg Ala Gly Thr Gly
 1
<210> 143
<211> 16
<212> PRT
<213> Homo sapiens
<400> 143
Gly Thr Ser Asp Arg Ser Glu Leu Arg Pro Glu Gln Pro Ala Ser Gly
```

<212> PRT <213> Homo sapiens

<400> 144

Met Glu Cys Leu Arg Ser Leu Pro Cys Leu Leu Pro Arg Ala Met Arg 1 5 10 15

Leu Pro Arg Arg Thr Leu Cys Ala Leu Ala Leu Asp Val Thr Ser Val
20 25 30

Gly Pro Pro Val Ala Ala Cys Gly Arg Arg Ala Asn Leu Ile Gly Arg 35 40 45

Ser Arg Ala Ala Gln Leu Cys Gly Pro Asp Arg Leu Arg Val Ala Gly
50 55 60

Glu Val His Arg Phe Arg Thr Ser Asp Val Ser Gln Ala Thr Leu Ala 65 70 75 80

Ser Val Ala Pro Val Phe Thr Val Thr Lys Phe Asp Lys Gln Gly Asn 85 90 95

Val Thr Ser Phe Glu Arg Lys Lys Thr Glu Leu Tyr Gln Glu Leu Gly
100 105 110

Leu Gln Ala Arg Asp Leu Arg Phe Gln His Val Met Ser Ile Thr Val 115 120 125

Arg Asn Asn Arg Ile Ile Met Arg Met Glu Tyr Leu Lys Ala Val Ile 130 135 140

Thr Pro Glu Cys Leu Leu Ile Leu Asp Tyr Arg Asn Leu Asn Leu Glu 145 150 155 160

Gln Trp Leu Phe Arg Glu Leu Pro Ser Gln Leu Ser Gly Glu Gly Gln 165 170 175

Leu Val Thr Tyr Pro Leu Pro Phe Glu Phe Arg Ala Ile Glu Ala Leu 180 185 190

. Leu Gln Tyr Trp Ile Asn Thr Leu Gln Gly Lys Leu Ser Ile Leu Gln 195 200 205

Pro Leu Ile Leu Glu Thr Leu Asp Ala Leu Val Asp Pro Lys His Ser 210 215 220

Ser Val Asp Arg Ser Lys Leu His Ile Leu Leu Gln Asn Gly Lys Ser 225 230 235 240

Leu Ser Glu Leu Glu Thr Asp Ile Lys Ile Phe Lys Glu Ser Ile Leu 245 250 255

Glu Ile Leu Asp Glu Glu Glu Leu Leu Glu Glu Leu Cys Val Ser Lys 260 265 270

Trp Ser Asp Pro Gln Val Phe Glu Lys Ser Ser Ala Gly Ile Asp His
275 280 285

Ala Glu Glu Met Glu Leu Leu Glu Asn Tyr Tyr Arg Leu Ala Asp 290 295 300 Asp Leu Ser Asn Ala Ala Arg Glu Leu Arg Val Leu Ile Asp Asp Ser 305 310 315 320

Gln Ser Ile Ile Phe Ile Asn Leu Asp Ser His Arg Asn Val Met Met 325 330 335

Arg Leu Asn Leu Gln Leu Thr Met Gly Thr Phe Ser Leu Ser Leu Phe 340 345 350

Gly Leu Met Gly Val Ala Phe Gly Met Asn Leu Glu Ser Ser Leu Glu 355 360 365

Glu Asp His Arg Ile Phe Trp Leu Ile Thr Gly Ile Met Phe Met Gly 370 375 380

Ser Gly Leu Ile Trp Arg Arg Leu Leu Ser Phe Leu Gly Arg Gln Leu 385 390 395 400

Glu Ala Pro Leu Pro Pro Met Met Ala Ser Leu Pro Lys Lys Thr Leu 405 410 415

Leu Ala Asp Arg Ser Met Glu Leu Lys Asn Ser Leu Arg Leu Asp Gly
420 425 430

Leu Gly Ser Gly Arg Ser Ile Leu Thr Asn Arg
435
440

<210> 145

<211> 10

<212> PRT

<213> Homo sapiens

<400> 145

Arg Ser Trp Gly Ala Pro Trp Phe Trp Arg 1 5 10

<210> 146

<211> 225

. <212> PRT

<213> Homo sapiens

<400> 146

Pro Leu Asn Thr Gln Ala Gly Lys Gly Leu Met Ser Val Val Pro Ile 1 5 10 15

Leu Glu Gly Gln Ala Leu Arg Ile Cys Ser Trp His Gly Ala Ala Ala 20 25 30

Pro Arg Pro Pro Gly Trp Pro Ser Arg Gly Ser Arg Gln Gln Val His

Gly Glu His Gly Pro Ala Ala Arg Val Leu Cys Gly Cys Gly Gly Arg
50 55 60

Gln Arg Gln Leu Pro Arg Arg Lys Ser Val Trp Ser Arg Leu Leu Gln 65 70 75 80

Ala Leu Glu Arg Gly Arg Glu Arg His Cys Val Arg Cys Gly Asn Gly
85
90
95

Thr Leu Pro Ala Tyr Asn Gly Ser Glu Cys Arg Ser Phe Ala Gly Pro 100 Cly Ala Pro Phe Pro Met Asn Arg Ser Ser Gly Thr Pro Gly Arg Pro 115 120 120 125

His Pro Gly Ala Pro Arg Val Ala Ala Ser Leu Phe Leu Gly Thr Phe 130 135 140

Phe Ile Ser Ser Gly Leu Ile Leu Ser Val Ala Gly Phe Phe Tyr Leu 145 150 155 160

Lys Arg Ser Ser Lys Leu Pro Arg Ala Cys Tyr Arg Arg Asn Lys Ala 165 170 175

Pro Ala Leu Gln Pro Gly Glu Ala Ala Ala Met Ile Pro Pro Gln 180 185 190

Ser Ser Val Arg Lys Pro Arg Tyr Val Arg Arg Glu Arg Pro Leu Asp 195 200 205

Arg Ala Thr Asp Pro Ala Ala Phe Pro Gly Glu Ala Arg Ile Ser Asn 210 215 220

Val 225

<210> 147 <211> 46 <212> PRT <213> Homo sapiens

<400> 147

Pro Leu Asn Thr Gln Ala Gly Lys Gly Leu Met Ser Val Val Pro Ile 1 5 10 15

Leu Glu Gly Gln Ala Leu Arg Ile Cys Ser Trp His Gly Ala Ala Ala 20 25 30

Pro Arg Pro Pro Gly Trp Pro Ser Arg Gly Ser Arg Gln Gln 35 40 45

<210> 148 <211> 46 <212> PRT <213> Homo sapiens

Val His Gly Glu His Gly Pro Ala Ala Arg Val Leu Cys Gly Cys Gly

1 5 10 15

Gly Arg Gln Arg Gln Leu Pro Arg Arg Lys Ser Val Trp Ser Arg Leu 20 25 30

Leu Gln Ala Leu Glu Arg Gly Arg Glu Arg His Cys Val Arg 35 40 45

```
<210> 149
 <211> 45
 <212> PRT
 <213> Homo sapiens
 <400> 149
 Cys Gly Asn Gly Thr Leu Pro Ala Tyr Asn Gly Ser Glu Cys Arg Ser
                  5
 Phe Ala Gly Pro Gly Ala Pro Phe Pro Met Asn Arg Ser Ser Gly Thr
                                  25
 Pro Gly Arg Pro His Pro Gly Ala Pro Arg Val Ala Ala
                              40
 <210> 150
 <211> 48
 <212> PRT
 <213> Homo sapiens
 <400> 150
 Ser Leu Phe Leu Gly Thr Phe Phe Ile Ser Ser Gly Leu Ile Leu Ser
 Val Ala Gly Phe Phe Tyr Leu Lys Arg Ser Ser Lys Leu Pro Arg Ala
 Cys Tyr Arg Arg Asn Lys Ala Pro Ala Leu Gln Pro Gly Glu Ala Ala
                               40
 <210> 151
 <211> 40
 <212> PRT
 <213> Homo sapiens
. <400> 151
 Ala Met Ile Pro Pro Pro Gln Ser Ser Val Arg Lys Pro Arg Tyr Val
                                                           15
                   5
                                       10
 Arg Arg Glu Arg Pro Leu Asp Arg Ala Thr Asp Pro Ala Ala Phe Pro
 Gly Glu Ala Arg Ile Ser Asn Val
 <210> 152
 <211> 155
 <212> PRT
 <213> Homo sapiens
 <400> 152
 Cys Arg Asn Ser Ala Arg Asp Tyr Asn Thr Ser Glu Gln Asn Val Met
 Asp Tyr His Gly Ala Glu Ile Val Ser Leu Arg Leu Leu Ser Leu Val
```

20	25	30

Lys Glu Glu Phe Leu Phe Leu Ser Pro Asn Leu Asp Ser His Gly Leu 35 40 45

Lys Cys Ala Ser Ser Pro His Gly Leu Val Met Val Gly Val Ala Gly
50 55 60

Thr Val His Arg Gly Asn Thr Cys Leu Gly Ile Phe Glu Gln Ile Phe 65 70 75 80

Gly Leu Ile Arg Cys Pro Phe Val Glu Asn Thr Trp Lys Ile Lys Phe
85 90 95

Ile Asn Leu Lys Ile Met Gly Glu Ser Ser Leu Ala Pro Gly Thr Leu 100 105 110

Pro Lys Pro Ser Val Lys Phe Glu Gln Ser Asp Leu Glu Ala Phe Tyr-115 120 125

Asn Val Ile Thr Val Cys Gly Thr Asn Glu Val Arg His Asn Val Lys 130 135 140

Gln Ala Ser Asp Ser Gly Thr Gly Asp Gln Val 145 150 155

<210> 153

<211> 43

<212> PRT

<213> Homo sapiens

<400> 153

Cys Arg Asn Ser Ala Arg Asp Tyr Asn Thr Ser Glu Gln Asn Val Met

1 5 10 15

Asp Tyr His Gly Ala Glu Ile Val Ser Leu Arg Leu Leu Ser Leu Val 20 25 30

Lys Glu Glu Phe Leu Phe Leu Ser Pro Asn Leu 35

<210> 154

<211> 43

<212> PRT

<213> Homo sapiens

<400> 154

Asp Ser His Gly Leu Lys Cys Ala Ser Ser Pro His Gly Leu Val Met
1 5 10 15

Val Gly Val Ala Gly Thr Val His Arg Gly Asn Thr Cys Leu Gly Ile

Phe Glu Gln Ile Phe Gly Leu Ile Arg Cys Pro 35 40

<210> 155

<211> 43

```
Here we will be the second of the second of
```

```
<212> PRT
<213> Homo sapiens
<400> 155
Phe Val Glu Asn Thr Trp Lys Ile Lys Phe Ile Asn Leu Lys Ile Met
                                     10
Gly Glu Ser Ser Leu Ala Pro Gly Thr Leu Pro Lys Pro Ser Val Lys
             20
Phe Glu Gln Ser Asp Leu Glu Ala Phe Tyr Asn
                             40
<210> 156
<211> 26
<212> PRT
<213> Homo sapiens
<400> 156
Val Ile Thr Val Cys Gly Thr Asn Glu Val Arg His Asn Val Lys Gln
Ala Ser Asp Ser Gly Thr Gly Asp Gln Val
<210> 157
<211> 26
<212> PRT
<213> Homo sapiens
 <400> 157
 Trp Met Ser Leu Thr Pro Pro Thr Pro Val Leu Phe Leu Phe Leu Ser
                 5
 1
 Leu Leu Trp Ala Arg Phe Phe Leu Ser Arg
              2.0
<210> 158
 <211> 23
 <212> PRT
 <213> Homo sapiens
 <400> 158
 Cys Trp Pro Leu Leu Ser Arg Gly Ser Ser Ala Ala Pro Trp Ala
                                      10
 Ser Val Pro Met Asp Gly Ala
 <210> 159
 <211> 25
 <212> PRT
 <213> Homo sapiens
 <400> 159
 Leu Pro Arg Gln Leu Ala Ser Pro Ser Ala Asn Thr Glu Leu Arg Val
                   5
```

Leu Leu Pro Ala Arg Val Arg His 20 25

<210> 160

<211> 119

<212> PRT

<213> Homo sapiens

<400> 160

Met Pro Leu His Leu Lys Ile Ser Gln Ala Trp Met Ser Leu Thr Pro 1 5 . 10 15

Pro Thr Pro Val Leu Phe Leu Phe Leu Ser Leu Leu Trp Ala Arg Phe 20 25 30

Phe Leu Ser Arg Leu Lys Cys Pro Gly Gly Cys Leu Cys Trp Pro Leu - 35 40 45

Leu Leu Ser Arg Gly Ser Ser Ala Ala Pro Trp Ala Ser Val Pro Met 50 55 60

Asp Gly Ala Ala His Ala Ala Ile Ser Ala Pro Gly Leu Ser Val Gln 65 70 75 80

Leu Leu Pro Arg Gln Leu Ala Ser Pro Ser Ala Asn Thr Glu Leu Arg 85 90 95

Val Leu Leu Pro Ala Arg Val Arg His Tyr Leu Pro Ser Ser Phe 100 105 110

His Gln Val Leu Gly Ser Ser 115

<210> 161

<211> 23

<212> PRT

<213> Homo sapiens

<400> 161

Thr Met Ala Thr Pro Leu Glu Asp Val Gly Lys Gln Val Gly Arg Ser 1 5 10 15

Cys Leu Leu Pro Val Ala Leu 20

<210> 162

<211> 17

<212> PRT

<213> Homo sapiens

<400> 162

Ala Thr Ala Glu Arg Glu Val Glu Ser Lys Gly Gln Ala Pro Trp Gly
1 5 10 15

Gln

```
<210> 163
<211> 206
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (21)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 163
Pro Pro Val Ser Ser Phe Arg Cys Glu Pro Asp Pro Arg Gly Arg Arg
Tyr Leu Gly Leu Xaa Val Phe Tyr Val Val Thr Val Ile Leu Cys Thr
Trp Ile Tyr Gln Arg Gln Arg Arg Gly Ser Leu Phe Cys Pro Met Pro
Val Thr Pro Glu Ile Leu Ser Asp Ser Glu Glu Asp Arg Val Ser Ser
Asn Thr Asn Ser Tyr Asp Tyr Gly Asp Glu Tyr Arg Pro Leu Phe Phe
Tyr Gln Glu Thr Thr Ala Gln Ile Leu Val Arg Ala Leu Asn Pro Leu
Asp Tyr Met Lys Trp Arg Arg Lys Ser Ala Tyr Trp Lys Ala Leu Lys
                                105
Val Phe Lys Leu Pro Val Glu Phe Leu Leu Leu Leu Thr Val Pro Val
Val Asp Pro Asp Lys Asp Asp Gln Asn Trp Lys Arg Pro Leu Asn Cys
                        135
Leu His Leu Val Ile Ser Pro Leu Val Val Leu Thr Leu Gln Ser
145
Gly Thr Tyr Gly Val Tyr Glu Ile Gly Gly Leu Val Pro Val Trp Val
                                     170
Val Val Val Ile Ala Gly Thr Ala Leu Ala Ser Val Thr Phe Phe Ala
Thr Ser Asp Ser Gln Pro Pro Arg Leu His Trp Val Arg Asn
                             200
 <210> 164
 <211> 46
 <212> PRT
```

```
<220>
```

<213> Homo sapiens

<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

```
<400> 164
Pro Pro Val Ser Ser Phe Arg Cys Glu Pro Asp Pro Arg Gly Arg Arg
Tyr Leu Gly Leu Xaa Val Phe Tyr Val Val Thr Val Ile Leu Cys Thr
Trp Ile Tyr Gln Arg Gln Arg Arg Gly Ser Leu Phe Cys Pro
                             40
<210> 165
<211> 46
<212> PRT
<213> Homo sapiens
<400> 165
Met Pro Val Thr Pro Glu Ile Leu Ser Asp Ser Glu Glu Asp Arg Val
Ser Ser Asn Thr Asn Ser Tyr Asp Tyr Gly Asp Glu Tyr Arg Pro Leu
             20
Phe Phe Tyr Gln Glu Thr Thr Ala Gln Ile Leu Val Arg Ala
                             40
<210> 166
<211> 45
<212> PRT
<213> Homo sapiens
<400> 166
Leu Asn Pro Leu Asp Tyr Met Lys Trp Arg Arg Lys Ser Ala Tyr Trp
Lys Ala Leu Lys Val Phe Lys Leu Pro Val Glu Phe Leu Leu Leu
Thr Val Pro Val Val Asp Pro Asp Lys Asp Asp Gln Asn
                             40
<210> 167
<211> 46
<212> PRT
<213> Homo sapiens
<400> 167
Trp Lys Arg Pro Leu Asn Cys Leu His Leu Val Ile Ser Pro Leu Val
Val Val Leu Thr Leu Gln Ser Gly Thr Tyr Gly Val Tyr Glu Ile Gly
```

Gly Leu Val Pro Val Trp Val Val Val Ile Ala Gly Thr
35 40 45

```
<211> 23
<212> PRT
<213> Homo sapiens
<400> 168
Ala Leu Ala Ser Val Thr Phe Phe Ala Thr Ser Asp Ser Gln Pro Pro
Arg Leu His Trp Val Arg Asn
             20
<210> 169
<211> 15
<212> PRT
<213> Homo sapiens
<400> 169
Thr Glu Lys Lys Lys Thr Cys Ile Leu Gly Ile Asp Pro Ser His
<210> 170
<211> 50
<212> PRT
<213> Homo sapiens
<400> 170
Arg Pro Gly Thr Ala Ile Trp Val Val Glu Cys Glu His Gly Arg Pro
Ile Ala Glu Ser Glu Gly Gln Glu Gly Arg Gly His Ser Pro Pro Gly
Pro Cys Ser Val Ala Gly Phe Leu Arg Gly Arg Leu Gly Arg Asn Leu
                             40
Glu Ile
     50
<210> 171
<211> 69
<212> PRT
<213> Homo sapiens
<400> 171
Arg Arg Glu Ser Phe Lys Val Thr Gly Leu Gly Pro Ser Leu Asn Pro
Phe Pro His Pro Pro Asn Ser Pro Ser Pro Met Pro His Phe Leu Leu
                                 25
Leu Val Ala Lys Thr Ile Leu Ile Asn Ser Glu Met Asn Met Ser Pro
         35
                             40
Glu Tyr Ser Gln Thr Cys Leu Gln Asn Thr Ala Ile Gln His Pro Val
                         55
Ile Lys Glu Lys Asp
 65
```

```
<210> 172
<211> 96
<212> PRT
<213> Homo sapiens
<400> 172
Met Pro His Phe Leu Leu Val Ala Lys Thr Ile Leu Ile Asn Ser
Glu Met Asn Met Ser Pro Glu Tyr Ser Gln Thr Cys Leu Gln Asn Thr
Ala Ile Gln His Pro Val Ile Lys Glu Lys Asp Met Gln Pro Trp Ala
Gly Leu Cys Pro Leu Leu Val Leu Trp Ile Ser Gly His Leu His Cys
Ile Ser Ala Leu Leu Gln Glu Arg Gly Val Gly Val Ser Leu Ser Ser
Arg Ser Asp Ala Cys Lys Ala Ala His Arg Ile Gly Thr Ser Ser Ser
<210> 173
<211> 27
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (25)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 173
Ala Ser Phe Ala Ile Ser Gln Pro Arg Asp Arg Asn Ala Cys Arg Tyr
```

Pro Ala Ala Phe Arg Gln Trp Cys Xaa Lys Gly